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Listing first 45 summaries
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Aay32297
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Human EZH
Human STA
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Human STA
Cyclin-de
Human pro
Human pro
Drosophil
Plant pol
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Cancer/an
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409	409	409	409	409	409	430	473.5	474	576.5	582.5	622.5	625	631	643.5	643.5	659	681.5	700.5	713	719.5	725
10.1	10.1	10.1	10.1	10.1	10.1	10.6	11.7	11.7	14.2	14.4	15.4	15.4	15.6	15.9	15.9	16.3	16.8	17.3	17.6	17.8	17.9
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AAM03374	AAM67821	ABB29459	AAM28129	ABB34636	AAM15631	ADX71195	ADO36757	AEE98254	AAY32298	ADX94797	ADX94793	ADX71472	ADY65574	ADX66894	ADX93483	ADY14004	ADX94796	ADY13472	ADX95305	ADX94788	AAB01673
Aam03374 Peptide #	Aam67821 Human bon	Abb29459 Peptide #	Aam28129 Peptide #	Abb34636 Peptide #	Aam15631 Peptide #	Adx71195 Plant ful	Ado36757 PR/SET do	Aee98254 Human EZH	Aay32298 Wheat pol	Adx94797 Plant ful	Adx94793 Plant ful		Ady65574 S. manson	Adx66894 Plant ful	Adx93483 Plant ful	Ady14004 Plant ful	Plant	Plant	Adx95305 Plant ful	Plant	Aab01673 FIS1 prot

ALIGNMENTS

RESULT 1 AAW05260

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		transformed cells, proteins and antibodies, f	New DNA encoding chromatin regulator protein with SET domain - and		N-PSDB; AAT43624.	WPI; 1996-518672/51.		Jenuwein T, Laible G;		(BOEH) BOEHRINGER INGELHEIM INT GMBH.		10-MAY-1995; 95DB-01016776.		02-MAY-1996; 96WO-EP001818.		14-NOV-1996.		WO9635784-A2.		Homo sapiens.		cancer.	Chromating; regulator; EZH1; EZH2; SUV39H; SET domain; gene therapy,		Chromatin regulator protein EZH2.		05-MAY-1997 (first entry)	25-MAR-2003 (revised)		AAW05260;		AAW05260 standard; protein; 746 AA.	

Claim 12; Fig 7; 38pp; German.

Sequence 746 AA;

The DNA was isolated by screening a human B cell cDNA library with mixed Drosophila DNA probes based on the conserved SET domains in E(z) and Su(var)3-9. The DNA, and its products, are useful in therapy (esp. gene therapy) and diagnosis of human diseases that involve deregulated chromatin-regulator genes having a SET domain, esp. cancer. (Updated on 25-MAR-2003 to correct PR field.)

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Best Local Similarity
Matches 746; Conserv
             Lung cancer-associated polypeptide; cytostatic; emphysema; antiinflammatory; antiasthmatic; non-small cell lung cancer; atelectasi small cell lung cancer; benign lesion; precancerous lesion; bronchitis; chronic obstructive pulmonary disease; hypersensitivity pneumonitis; interstitial pulmonary fibrosis; fibrosis; asthma; bronchiectasis.
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                                                                                                                                                                                      standard;
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The invention relates to a method for detecting a lung cancer-associated cranscript in a cell from a patient, comprising contacting a biological cample from the patient with a polynucleotide that selectively hybridises to a sequence that is at least 80 % identical to a gene that exhibits can associated polynucleotides and polypeptides are used for identifying a sesciated polynucleotides and polypeptides are used for identifying a compound that modulates a lung cancer-associated polypeptide, for compound that modulates a lung cancer-associated cell to treat lung cancer in a patient and for treating a mammal having lung cancer by cancer in a patient and for treating a mammal having lung cancer by cancer in a patient and for treating a mammal having lung cancer by cancer in a patient and for treating a mammal having lung cancer by cancer in a patient and for treating a member of the sensitivity general cell lung cancer, such as small cell lung cancer, non-small cell confinement, interstitial pulmonary disease, fibrosis, hypersensitivity pneumonitis, interstitial pulmonary disease, fibrosis, asthma and bronchies that modulate lung cancer, such as antibodies. Sequences and suggested by the second compounds that modulate lung cancer, such as antibodies. Sequences and suggested polypeptides of the invention
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10-MAY-2001;
09-NOV-2001;
13-NOV-2001;
29-NOV-2001;
12-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Detecting a lung cancer-associated transcript in a cell from for treating lung cancer, by contacting a biological sample f patient with a polynucleotide that exhibits increased or decrexpression in lung cancer.
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; 2001US-0350666P.
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KEKYKELTEQQLPGALPPECTPNIDGPNAKSVQREQSLHSFHTLFCRRCFKYDCFLHPFH
                                                                                                                                               KQRRIQPYHILTSVSSLRGTRECSVTSDLDFPTQVIPLKTLNAVASVPIMYSWSPLQQNF
                                                    YNDDDDDDDDDDDDEEREEKQKDLEDHRDDKESRPPRKFPSDKIFEAISSMFPDKGTAEEL
                                                                                  MVEDETVLHNIPYMGDEVLDQDGTFIEELIKNYDGKVHGDRECGFINDEIFVELVNALGQ
                                                                                                         MVEDETVLHNIPYMGDEVLDQDGTFIEELIKNYDGKVHGDRECGFINDEIFVELVNALGQ
                                                                                                                                                                                MGQTGKKSEKGPVCWRKRVKSEYMRLRQLKRPRRADEVKSMFSSNRQKILERTEILNQEW
                                                                                                                                 KQRRIQPVHILTSVSSLRGTRECSVTSDLDFPTQVIPLKTLNAVASVPIMYSWSPLQQNF
                                                                                                                                                                                                                                Conservative
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                                                                                                                                                                                                                               Score 4038; DB 6
Pred. No. 9e-302;
0; Mismatches
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RESULT 3
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STAT6-activating proteins and developing drugs to tr
                                                                                                                                   25-MAY-2001; 2001JP-00157043
30-AUG-2001; 2001JP-00260681
10-OCT-2001; 2001JP-00313175
                                                                                                                                                                                                                                                                                                Human; STAT6-activating protein; drug screening; activator; inhibitor; allergic disease; inflammation; autoimmune disease; diabetes; hyperlipidaemia; cancer; infection; HIV infection; human immunodeficiency; cancer; Thi hyperfunction; antiallergic; antiinflammatory; antidiabetic; antilipaemic; antiinfective; anti-HIV; cytostatic; gene therapy; antisense therapy; ribozyme therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADG10642
                                                                                                                                                                                         22-MAY-2002; 2002WO-JP004949
                                                                                                                                                                                                                                              WO200296943-A1
                                                                                                                                                                                                                                                                         Homo
                                                                                                                                                                                                                                                                                                                                                                                                Human
                                                                                                         (ASAH ) ASAHI KASEI KOGYO KK
                                        2003-140442/13.
DB; ADG10641.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YMCSFLFNLINNDFVVDATRKGNKIRFANHSVNPNCYAKVMAVNGDHRIGIFAKRAIQTGE
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encoded genes, applicable in diagnosis allergic diseases, inflammations,
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> autoimmune diseases, diabetes, hyperlipidemia, æ ம் HIV,

Claim 1; OBS ㅂ g 2080pp;

proteins; drug compositions comprising a modulator of STAT6-activating protein activity or expression; and methods of treating patients by administration of the drug compositions. The STAT6-activating proteins, nucleic acids encoding them, and modulators of their activity or expression are useful in the diagnosis and treatment of allergic diseases, inflammation, autoimmune diseases, diabetes, hyperlipidaemia, cancer, infections (e.g., HIV), cancer and disorders associated with Thi hyperfunction. The present sequence is related to the invention. homology to the STAT6-activating proteins and their encoding nucleic acids. The invention also relates to recombinant vectors and host cells comprising a STAT6-activating protein-encoding nucleic acid; the recombinant production of a STAT6-activating protein; an antibody specific for a STAT6-activating protein; antisense oligonucleotides and ribozymes targeted to nucleic acids encoding a STAT6-activating protein; methods of screening for activators or inhibitors of STAT6-activating relates to (ADG10411-ADG10894) and to sequences 242 human STAT6-activating proteins and cDI CDNAS

Sequence 746 A

744;

Conservative

Similarity

99.7%;

7;

Length Indels

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Gaps

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Query Match
Best Local S
Matches 744
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CKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNEFISEYCGEIISQDEADRRGKVYDK
                   CKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNEFISEYCGEIISQDEADRRGKVYDK
                                                               NFCEKFCQCSSECQNRFPGCRCKAQCNTKQCPCYLAVRECDPDLCLTCGAADHWDSKNVS
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Pred. No. 9e-302;
0; Mismatches
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RESULT 4
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ID ADM393929
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AC ADM
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13-FEB-2002;
20-FEB-2002;
29-MAR-2002;
04-APR-2002;
12-APR-2002;
05-JUN-2002;
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22-JUL-2002;
22-JUL-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-DEC-2001;
08-JAN-2002;
10-JAN-2002;
The invention relates to nucleic acids and proteins (ADN38683-ADN40064 whose expression is upregulated or downregulated in specific cancers or other diseases such as angiogenic or fibrotic disorders, and to method of determining the presence or absence of a pathological cell in a patient by detecting a nucleic acid at least 80% identical to those of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; differential expression; cancer; angiogenic disorder; fibrotic disorder; psoriasis; ischaemia; heart disease; atheroscleros inflammatory disease; autoimmune disease; autoimmune disease; retinal neovascularistaion syndrome; scarring; uterine fibroid; detection; diagnosis; prognosis; drug screening; drug targeting; detection; contraception; cytostatic; cardiant; immunomodulatory; wound healing; contraception; cytostatic; cardiant; immunomodulatory;
                                                                                                                                         Determining the presence or absence of a pathological useful for diagnosing, prognosing or treating cancer, a nucleic acid in a biological sample.
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Mack
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03-DEC-2001;
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                                                                                                            Claim
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21-NOV-2001;
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DB; ADN39391.
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Murray
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2001US-033439P.
2001US-033534P.
2001US-034731P.
2002US-034731P.
2002US-034731P.
2002US-0356714P.
2002US-0356714P.
2002US-0356714P.
2002US-0359077P.
2002US-0368809P.
2002US-0370110P.
2002US-0372246P.
2002US-03977246P.
2002US-0397845P.
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2002US-0397845P.
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R, Watson SR,
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E, Zlotnik
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Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                           CC The invention relates to an agent for the prophylaxis and therapy of CC cancer comprising a compound which inhibits the activity or expression of CM thuman EZH2 (enhancer of zeste homologue 2), resulting in apoptosis. The CC human EZH2 (enhancer of zeste homologue 2), resulting in apoptosis. The CC EZH2 inhibitors include anti-EZH2 antibodies and EZH2 antisense nucleic condist. The invention also relates to a kit for screening for inhibitors CC in EZH2 in transferase activity which methylates histone H3 on lysine considers at position 9 and/or 27. It has been found to be deregulated in CC various tumours, and acts as a mediator of tumorisenesis, being able to reverse repression of cyclin A which in turn mediates cell cycle advancement. The agent of the invention can be used for preventing, creating and diagnosing cancers such as colorectal cancer, breast cancer, cling cancer, pancreatic cancer and ovarian cancer, and can also be used in drug screening. The agent of the invention is safe and less toxic than prior art cancer prophylactic/therapeutic agents. The present sequence corporesents human EZH2, which is referred to in the claims.
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Best Local Similarity
Matches 745; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel prophylactic and therapeutic agent of cancer, having compound its salt that inhibits activity of enhancer of zeste Drosophila home protein, useful for treating cancer such as lung cancer, breast canc
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DB; ADP95921, ADP95922.
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    Isogai T,
Yamamoto (
Seki N, )
                                                                                                       05-NOV-2001;
25-JAN-2002;
                                                                                                                                                                                                                                                                                    Human; pharmaceutical; diagnostic; gene therapy; tissue regeneration; cell regeneration; membrane protein; signal transduction-related prot transcription-related protein; osteoporosis; neurological disease;
                                                                                                                                                                                                                                                                                                                                             Human protein
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                                                                                                                                                    28-MAR-2002;
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                                                                                                                                                                                                                                          Homo sapiens.
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J, Isono Y,
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Otsuki T, Wakamatsu A, Sa
Hio Y, Otsuka K, Nagai K,
Otsuka M, Nagahari K, Mass
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   i K, Irie
Masuho Y;
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Tamechika

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New polymucleotides and polypeptides, useful for developing a diagnostic marker or medicines for regulation of their expression and activity, or
Sequence
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CC polypeptides. Also claimed is a polypeptide encoded by the polynucleotide of the polynucleotide, an antibody binding to the polypeptide or peptide of the polynucleotide, immunologically assaying the polypeptide or peptide core peptide of the polynucleotide by contacting the polypeptide or peptide or peptide of the polynucleotide by contacting the polypeptide or peptide core peptide of the polynucleotide by contacting the polypeptide or peptide core peptide of the two, a transformant carrying the polynucleotide in an expressible manner and an antisense polynucleotide. The oligonucleotide core is useful as a primer for synthesising the polynucleotide, or as a probe core detecting the polynucleotide. The polynucleotide core may be included in them, for developing a diagnostic marker or core medicines for regulation of their expression and activity, or as targets of gene may be included in them, for developing a diagnostic marker or core for the trapy. The genes are involved in tissue and/or cell core reguneration. Membrane proteins, signal transduction-related proteins, curvological diseases, cancer, tumours for diseases (e.g. osteoporosis, neurological diseases, cancer, tumours. The cDNA may be used to regulate the activity or expression of the encoded protein to treat diseases. The sequence presented is a protein of the invention. Note: Some of the sequence data for this patent is not represented in the printed core sequence data for this patent is not represented in the printed core sequence data for this patent is not represented in the printed core sequence data for this patent is not represented in the printed core sequence data for this patent is not represented in the printed core sequence atta for the sequence information supplied by the core sequence atta for the sequence information supplied by the core process of the sequence in the printed sequence in the p Matches Query Match Best Local 322 361 262 301 202 241 142 421 181 121 83 61 61 ш , Similarity MGQTGKKSEKGPYCWRKRYKSEYMRLRQLKRFRRADEVKSMFSSNRQKILERTEILNQEW YNDDDDDDDDDDDDEEREEKQKDLEDHRDDKESRPPRKFPSDKIFEAISSMFPDKGTAEEL MVEDETVILHNI PYMGDEVLDQDGTFI EELI KNYDGKVHGDRECGFI NDEI FVELVNALGQ NSSRPSTPTINVLESKDTDSDREAGTETGGENNDKEEEEKKDETSSSSEANSRCQTPIKM ATPNTYKRKNTETALDNKPCGPQCYQHLEGAKEFAAALTAERIKTPPKRPGGRRRGRLPN KEKYKELTEQQLPGALPPECTPNIDGPNAKSVQREQSLHSFHTLFCRRCFKYDCFLHPFH YNDDDDDDDDDDDEERBEKQKDLEDHRDDKESRPPRKFPSDKIFEAISSMFPDKGTAEEL KORRIOPVHILTSVSSLRGTRECSVTSDLDFPTQVIPLKTLNAVASVPIMYSWSPLQQNF KPNIEPPENVEWSGAEASMFRVLIGTYYDNFCAIARLIGTKTCRQVYBFRVKESSIIAPA NSSRPSTPTINVLESKDTDSDREAGTETGGENNDKEEEEKKDETSSSSEANSRCQTPIKM ATPNTYKRKNTETALDNKPCGPQCYQHLEGAKEFAAALTAERIKTPPKRPGGRRRGRLPN KEKYKELTEQQLPGALPPECTPNIDGPNAKSVQREQSLHSFHTLFCRRCFKYDCFLHPFH -VEDETVLHNI PYMGDEVLDQDGTFIEELIKNYDGKVHGDRECGFINDEIFVELVNALGQ Conservative 94.1%; 0; Score 3812.5; Pred. No. 1.96 Mismatches 5; DB 7; Indels Length 39; Gaps 300 180 141 60 480 420 321 360 201 82 60 261 381

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                 ELFFDYRYSQADALKYVGIEREMEIP
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ADG107 allergic disease; inflammation; autoImmune disease; diabetes; hyperlipidaemia; cancer; infection; HIV infection; human immunodeficiency; cancer; Thi hyperfunction; antiallergic; antiinflammatory; antidiabetic; antilipaemic; antiinfective; anti-HIV; cytostatic; gene therapy; antisense therapy; ribozyme therapy. Human; STAT6-activating protein; allergic disease; inflammation; ADG10764 standard; protein; 517 Homo Human STAT6-activating protein, sapiens (first entry) SEQ ID 8 drug screening; activator; inhibitor; NO:354.

WO200296943-A1

05-DEC-2002

25-MAY-2001; 22-MAY-2002; 2002WO-JP004949 ; 2001JP-00157043. ; 2001JP-00260681. ; 2001JP-00313175.

(ASAH) ASAHI KASEI KOGYO KK

Honda Matsuda Þ Muramatsu S Ishizawa

2003-140442/13.)B; ADG10763.

STAT6-activating proteins and and developing drugs to treat autoimmune diseases, diabetes, encoded genes, applicable in diagnosis allergic diseases, inflammations, hyperlipidemia, infections e.g. HIV, a œ.

۲, SEQ ID NO 354; 2080pp; Japanese

The invention relates to 242 human STAT6-activating proteins and cDNAs encoding them (ADG10411-ADG10894) and to sequences with 95% or more homology to the STAT6-activating proteins and their encoding nucleic acids. The invention also relates to recombinant vectors and host cells comprising a STAT6-activating protein-encoding nucleic acid; the recombinant production of a STAT6-activating protein; an antibody specific for a STAT6-activating protein; antisense oligonucleotides and ribozymes targeted to nucleic acids encoding a STAT6-activating protein; entire oligonucleotides and ribozymes targeted to nucleic acids encoding a STAT6-activating protein; entired to stargeted to nucleic acids encoding a STAT6-activating protein;

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Matches 517
  29-JUL-2003; 2003US-0490890P
                                                         29-JUL-2004; 2004WO-US024424.
                                                                                                                                                                                                                                                                                                                                      Cyclin-dependent kinase modulation biomarker
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADX05848 standard;
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                                                                                                                                                                 WO2005012875-A2
                                                                                                                                                                                                                           Homo sapiens
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Pred. No. 4.1e-210;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                  kinase;
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Query Match Best Local Similarity Matches 490; Conserv

Conservative

92;

Score 2601.5; DB 9; Pred. No. 3.8e-191; 92; Mismatches 123;

Indels

Gaps

Length

747; 53;

ot form format

64.28;

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cc whether a mammal will respond or is responding to an anti-cancer agent contact modulates cyclin-dependent kinase (cdk) activity. The method cc comprises measuring the level of one or more biomarkers selected from cc 2774 biomarkers given in the specification (nucleotide sequence SEQ ID CN 0:1246 (Genbank EST W28729) is especially preferred). The method of the cinvention is utilized in a kit for determining or predicting whether cc invention is utilized in a kit for determining or predicting whether cc patient would be susceptible or resistant to treatment by an agent condulating cdk activity. The invention also describes a method for cc utilizing individualized genetic profiles for treating diseases and cc disorders based on patient's response and molecular level, specialized cc microarrays comprising the biomarkers described, antibodies directed cc against the biomarkers and a cell culture model to identify biomarkers. CC The cdk modulator is preferably N-5-([5-(1,1-Dimethylethyl)-2-CC oxazolyl]methyl]thio]-2-thiazolyl-4-piperidine carboxamide, 0.5-L-CC tartaric acid salt. Note: The sequence data for this patent did not form control of the printed specification, but was obtained in electronic format control of the printed specification, but was obtained in electronic format control of the invention a biomarker used in the method of the invention.
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Biomarkers useful for predicting
to a cancer treatment comprising
dependent kinase activity.
                                                                                                                                                                                                                                                                                                                                                                                                                            This invention describes a novel method of predicting or determining whether a mammal will respond or is responding to an anti-cancer age
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747
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B
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KW congenital adrenal hyperplasia; haemophilia; hypercoagulation;

KW idiopathic thrombocytopaemic purpura; autoimmune disease; allergy;

KW immunodeficiencies; transplantation; Von Hippel-Lindau syndrome;

KW immunodeficiencies; transplantation; Von Hippel-Lindau syndrome;

KW hlzheimer's disease; cerebral palsy; Lesch-Nyhan syndrome; pain;

KW huntington's disease; cerebral palsy; Lesch-Nyhan syndrome; pain;

KW multiple sclerosis; ataxia-telangiectasia; leukodystrophy; anxiety;

KW behavioural disorder; addiction; neuroprotection; diabetes; ARDS;

KW renal artery stenosis; interstitial nephritis; glomerulonephritis;

KW polycystic kidney disease; systemic lupus erythematosus; IQA;

W renal tubular acidosis; immunoglobulin A nephropathy; hypercalcaemia;

KW cirrhosis; transplantation; asthma; emphysema; scleroderma; GVHD;

W adult respiratory distress syndrome; graft versus host disease;

W lymphedema; fertility; pancreatitis; obesity; haemophilia; ulcer;
  19-APR-2001;
23-APR-2001;
24-APR-2001;
25-APR-2001;
25-APR-2001;
02-MAY-2001;
17-MAY-2001;
17-MAY-2001;
18-JUN-2001;
18-JUN-2001;
18-JUN-2001;
18-JUN-2001;
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10-APR-2001;
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03-APR-2001;
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2001US-0281136P,
2001US-0281863P,
2001US-0281906P,
2001US-0282934P,
2001US-0283512P,
2001US-0285325P,
2001US-0285325P,
2001US-0285390P,
2001US-0286690P,
2001US-0286292P,
2001US-0287213P,
2001US-0287213P,
2001US-029125P,
2001US-029175P,
2001US-029175P,
2001US-029173P,
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                                                                                                                                                                                                                                                                                                                                                                                  CY The invention relates to an isolated NOVX polypeptide selected from NOV1-
CC NOV27 polypeptides, a mature form of NOVX, a variant of NOVX or a
CC fragment of NoVX. Also included are determining the presence or amount of
CC to the polypeptide), determining the presence of or predisposition to
CC the polypeptide), determining the presence of or predisposition to
CC the polypeptide), determining the presence of or predisposition to
CC to the polypeptide, a potential thereof levels of NOVX in a first mammalian
CC subject, identifying a potential therapeutic agent for use in the
CC reatment of pathology related to aberrant expression of physiological
CC interactions of NOVX, screening for a modulator of activity or of latency
CC or predisposition to a pathology associated with NOVX, the nucleic acid
CC encoding NOVX, vectors and host cells. NOVX is useful for identifying an
CC agent (a cellular receptor or downstream effector) that binds to NOVX.
CC associated disorders in humans, and in the manufacture of a medicament
CC for treating a NOVX related disease human disease e.g.
CC adrenoleukodystrophy, congenital adrenal hyperplasia, haemophilia,
CC hypercoagulation, idiopathic thrombocytopaenic purpura, autoimmune
CC disease, allergies, immunodeficiencies, transplantation, Von Hippel-
CC parkinson's disease, Huntington's disease, stroke, tuburous sclerosis,
CC parkinson's disease, huntington's disease, systemic lupus
CC parkinson's disease, stroke, tuburous sclerosis,
CC parkinson's disease, stroke
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                                                                                                                                                                                                                                                       Matches 466;
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Shimkets RA, Guo X, Anderson DW, Patturajan M, Berghs
Taupier RJ, Pena CEA, Padigaru M, Liu Y, Burgess CE, Gusev VY, Kekuda R, Gorman L, Zerhusen BD, Baumgartner
Tchernev VT, Vernet CAM, Smithson G, Heyes MP, Shenoy Gangolli EA;
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04-JAN-2002; 2002US-0345221P
02-APR-2002; 2002US-00345221.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New polypeptides, designated NOVX polypeptides, useful for treating hemophilia, idiopathic thrombocytopenic purpura, autoimmune disease, allergies, transplantation, Alzheimer's disease and stroke.
                                                                                                                                                                                                                                                                                                                                      Sequence
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DB; ABX17535.
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SSLRGTRECSVTSDL-DFPTQVIPLKTLNAVASVPIMYSWSPLQQNFMVEDETVLHNIPY
                                                                                                                                                                                     WRKRVKSEYMRLRQLKRFRRÅDEVKSMESSNRQKILERTEILNQEWKQRRIQPVHILTSV 74
                                                                                                                                                                                                                                                                                                                                      723
                                                                                   SGHPFLKKCTIESIFPGFASQHMLMRSLNTVALVEIMYSWSBLQQNFMVEDETVLCNIPY
                                                                                                                                                                    WKRKVKSEYMRLROLKRLQANMGAKALYVANFAKVQEKTQILNEEWKKLRVQFVQSMKPV
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                                                                                                                                                                                                                                                   93;
                                                                                                                                                                                                                                                       Score 2429.5; DB 6;
Pred. No. 6.5e-178;
93; Mismatches 122;
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Miller CE;
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New isolated nucleic acid genes from Drosophila and
                                                                            23-MAR-2000;
11-JUL-2000;
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                                                                                                                  27-SEP-2001
                                                                                                                                               Drosophila melanogaster
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                        2001-656860/75.
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                                                                                                                                                                                                                                                                                                                                                                                                                                HHIVSASCSNASASAVAETKEGDSDRDTG------NDWASSSSEANSRCQT
                                                                                                                                                                                                                                                                          IGIFAKRAIQTGEELFFDYRYSQADALKYVGIEREMEI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PHATPNVYKRKNKEIKIEPEPCGTDCFLLLEGAKEYA-----MLHNPRSKCSGRRRRR
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                                                              CORP
                                                                                                                                                                                     melanogaster
                                              Adams
                                                                           2000US-0191637P.
2000US-00614150.
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                                              Z,
                                                                                                                                                                                                                                   protein;
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                                              PWD,
detection reagent for detecting 1000 or more for elucidating cell signaling and cell-cell
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Best Local Similarity 53.9
Matches 432; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to an isolated nucleic acid detection reagent capable of detecting 1000 or more genes from Drosophila. The invention useful in developmental biology and in elucidating cell signalling and cell-cell interactions in higher eukaryotes for the development of insecticides, therapeutics and pharmaceutical drugs. The invention discloses genomic DNA sequences (ABL0161-6-ABL30511), expressed DNA sequences (ABL01840-ABL16175) and the proteins (ABB57737-ABB72072). The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
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TSTQCV-WTGADQALYRVLHKVYLKNYCAIAHNWLTKTCRQVYEFAQKEDAEFSFEDLRQ
                                                                                                                                                                                                                                                                                                                         GALPPECTPNIDGPNAKSVQREQSLHSFHTLFCRRCFKYDCFLHPF--HATPNTYKRKVT
                                                                                                                                                                                                                                                                                                                                                                                                                                            EDETVLHNIPYMGDEVLDKDGKFIEBLIKNYDGKVHGDKDFSFMDDAIFVELVHALMRSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                           BDETVLHNIPYMGDBVLDQDGTFIEBLIKNYDGKVHGDRECGFINDBIFVELVNAL----
                                                                                                                                                                                               EPPENVEWSGAEASMFRYLIGTYYDNFCAIARLIGTKTCRQVYEFRVKESSIIAPAPAED
                                                                                                                                                                                                                     ----IDSCNEASSEDSNDSNSQFSNKDFNHENSKDNGLTVNSAAVAEINSIMAGMMNI
                                                                                                                                                                                                                                          VLESKOTDSDREAGTETGGENNDK-----BEEEKKDETSSSEANSRCQTFIKMKPNI
                                                                                                                                                                                                                                                                 ELKPFAEPCSNSCYMLIDGMKEKLAADS----KTPP-----
                                                                                                                                                                                                                                                                                      ETALDNKPCGPQCYQHLEGAKEFAAALTAERIKTPPKRPGGRRRGRLPNNSSRPSTPTIN
                                                                                                                                                                                                                                                                                                             -ERPOSCTPNIDGIKABSVSRERTMHSFHTLFCRRCFKYDCFLHRLQGHAGPNLQKRRYP
                                                                                                                                                                                                                                                                                                                                                                                                  SKELEEAAPGTATAIKTETLAKSKOGEDDGVVDVDADGESPMKLEKTDSKGDLTEVEKKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STKVPPEWKRRVKSEYIKIRQQKRYKRADEIKEAWIRNWDEHNHNVQDLYCESKVWQAKP
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RESULT 11
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The invention relates a recombinant DNA construct comprising a CC polynucleotide having any of 5544 nucleotide sequences (CDNAs SEQ ID NO: 5544) and encoding a polypeptide with any of 5544 amino acid sequences (SEQ ID NO: 5545-1108). The CDNAs and proteins are from corn, soybean, CC harbidopsis, wheat and rape but the specification does not indicate which sequences is derived from which organism. Also included is a method of producing a plant having an improved property, comprising transforming a complex property in the property of promoter region comprising transforming a plant with a recombinant DNA construct comprising a promoter region complex property is selected from improving plant cold tolerance, for manipulating growth rate in plant cells by modification of the cell cycle pathway, for improving plant tolerance, for providing increased comproving plant tolerance for comproving plant tolerance, for improving plant tolerance, for improving plant tolerance to plant disease, for galactomannan production, for production of plant growth regulators, for improving plant tolerance, for improving plant tolerance to harbicides, for increasing the rate of complex providing plant tolerance to harbicides, for increasing the rate of photosynthesis, for modifying seed or pests, for lignin production, for improving plant tolerance to pathogens or pests, for lignin production, for improving plant tolerance to pathogens or pests, for yield improvement by modification of compositions of co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Plant; transgenic; cold tolerance; growth rate; drought tolerance; disease resistance; galactomannan production; plant growth regulator; heat tolerance; herbicide tolerance; lignin production; extreme osmotic condition tolerance; pathogens resistance; pest resistance; yield improvement; seed oil yield; seed protein yield.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New recombinant DNA constructs useful in the field of biochemistry and genetics, and in particular for producing transgenic plants with improbiological characteristics.
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28-APR-2003; 2003US-00425115.
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|||| : ||:|||||||
739 DYRYGPTEQLKFVGIEREMEI 759
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705
Db 720 GDGSLGEPPARGDGYQCGNMKLLLKQQQRILLGRSDVAGWGAFIKNPVNKNDYLGEYTGE Qy 645 IISQDBADRRGKVYDKYMCSFLFNLNNDFVVDATRKGNKIRFANHSVNPNCYAKVMMVNG
Db 665 NGTCCEKYCGCSKSCKNKFRGCHCAKSQCRSRQCFCFAASRECDEDVCRNCWYSC OY 597KNVSCKNCSIQRGSKKHLLLAPSDVAGWGIFIKDÞYQKNEFISEYCGE ; ;
OY 539 AQNFCEKFCQCSSECQNREPGCRG-KAQCNTKQCFCYLAVRECDFDLCLTCGAADHWDS
OY 486 DTPPRKKKRKHRLWAAHCRKIQLKKDGSSNHVY-NYQPCDHPRQPCDSSCPCVI
OY 446 TYYDNFCAIARLIGTKTCRQVYEFRVKESSIIADADABDV
Qy 400 KKDETSSSSEANSRC-QTPIKMKPNI-EPPENVEWGAEASMFRVLIG
Qy 350 PGGRRRGRLPNNSSRPSTPTINVLBKDTDSDREAGTETGGENNDKEEEE
Qy 331
Qy 308 RKNTETALDNKPCGPQCYQHLEG
Qy 256 LPPECTPNIDGPNAKSVQREQSLHSFHTLFCRRCEKYDCFLHPFHATFNTY :-
Qy 196 REEKQKDLEDHRDDKESRPPRKFPSDKIFEAISSMFPDKGTAEELKEKYKELTEQQLPGA : : :
Qy 147 BELIKNYDGKVHGDRECGFINDEIFVELVNALGQYNDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Qy 95 VIPLKTLNAVASVPIMYSWSPLQQN-FMVEDETVLHNIPYMGDEVLDQDG ;
Query Match 20.5%; Score 829; DB 8; Length 895 Best Local Similarity 29.7%; Pred. No. 1.6e-54; Matches 240; Conservative 100; Mismatches 217; Indels
CC tolerance to extreme osmotic and drought conditions, and improving I CC tolerance to plant pests or pathogens. They can also be used in phys CC arrays of molecules, plant breeding markers, computer-based storage CC analysis systems. The present sequence is one of the 5544 plant prot CC sequences of the invention. Note: The sequence data for this patent CC not form part of the printed specification, but was obtained in CC electronic format directly from USPTO at CC seqdata.uspto.gov/sequence.html?DocID=20040216190. XX Sequence 895 AA;

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ADY25049

XX ADY2

XX
                             Query Match
Best Local :
Matches 251;
                                                                                                                                                                                     ftp.seqdata.uspto.gov/sequence.html?DocID:2004034888. The polynucleotide of the invention are also useful in physical arrays of molecules and as plant breeding markers. The recombinant DNA construct is useful for improving plant tolerance to cold, heat, drought, herbicides, extreme osmotic conditions, pathogens or pests, for manipulating growth rate in plant cells by modification of the cell cycle pathway, for conferring increased resistance to plant disease, for producing galactomannan, lignin or plant growth regulators, for increasing the rate of homologous recombination in plants, for improving yield by modification of photosynthesis or carbohydrate, nitrogen or phosphorus use and/or uptake or by providing improved plant growth and development under at least one stress condition or for modifying seed oil or protein yield and/or content. This is the amino acid sequence of a plant full length insert polypeptide that can be used in the recombinant DNA construct of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New recombinant DNA construct, useful for improving plant tolerance cold, heat, drought, herbicides, extreme osmotic conditions, pathogopests, for conferring increased resistance to plant disease, or for
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention describes a recombinant DNA construct comprising polynucleotide consisting of a sequence encoding an amino acid available in electronic form from the US patent office at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; SEQ ID NO 72833; 15pp; English.
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3; Mismatches 267;
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                                                                            CGEIISQDEADRRGKVYDKYMCSFLFNLNNDFVVDATRKGNKIRFANHSVNPNCYAKVMM
                         VNGDHRIGIFAKRAIQTGEELFFDYRYSQADA
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AA014530
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standard; protein; 893 B

AAO14530

16-MAY-2002 (first entry)

of. Mez2 (Maize $\mathbb{E}(z)$ -like <u>2</u>)

SASSESSES Maize; plant; genetic engineering; polycomb group; PcG; Maize E(z)-like; transgenic; antibody; marker; crop improvement; agronomic trait; homeotic gene expression; immunogen; screening; affinity chromatography;

25

RLRQLKRFRRADEVKSM---FSSNRQKILERTEILNQEWKQRRIQPVHILTSVSSLRGTR

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                                                                                                                                                                 The invention relates to plant genetic engineering. More specifically, CC the invention relates to isolated and purified polycomb group (PcG) genes CC from Zea mays (maize), termed Mezl and Mezl (Maize E(z)-like 1 and 2) CC genes comprising a sequence of 3180 and 3030 bp respectively, defined in CC the specification, or its conservatively modified and polymorphic CC variants. The PcG genes of the invention are useful in constructing CC recombinant expression cassettes which can be introduced into a desired plant, to produce a transgenic plant. Promoters derived from the Mezl or CC Mezl genes are useful to direct expression of heterologous sequences. The CC modified variants of the PcG genes are useful for generating or selecting CC methods for crop improvement. Mezl and Mezl proteins can be used to CC repress the expression or prevent the expression of a desired target gene CC expression in plants to create novel plants having improved agronomic CC immunogen for producing monoclonal or polyclonal antibodies which are CC immunogen for producing monoclonal or polyclonal antibodies which are CC polypeptide, and for affinity chromatography for isolating a Mezl or Mezl
                                                            Query Match
Best Local S
Matches 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel polycomb group nucleic acids and polypeptides from maize useful for producing transgenic plants and to repress expression or prevent the expression of a desired target gene in specific tissue in plants in vivo.
                                                                                                                            Sequence
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PIONEER HI-BRED INT 1
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QRSKRSDQGMGKDAAAASVVPI---
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ilarity 26.8%;
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                                                            Score 810; DB 5;
Pred. No. 4.5e-53;
8; Mismatches 249
                              PVCWRKRVKSEYMRLROLKRFRRADEVKSMFSSNROKILE
 -HANLTQL-----IRQVQSGRLAYIKE
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                                                                                              Length 893;
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                                                                                                                                                                                                                                                                           MKPNIEPPEN-----VB-----WSGAEASMFRVLIGTYYDNFCAIAR--LIGTKTCR
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                                                                                                                                                                                                                                 WREGFKEMHDDGLAGGATYTMESGTASQRVDVNVMYESEDSNRQKGNIRSMTLVGTSGPK 392
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                                                                 standard;
                                                                                                                                                  DYRYGPDQA
                                                                                                                                                                              DYRYSOADA
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                                                                                                                                                                                                                                                                                                                                            GCHCAKSQCRSRQCPCFAASRECDPDVCRNC-----WVSCGDGSLGEPLARGDGYQCGNM
                                                                                                                                                                                                                                                                                                                                                                          GCRC-KAQCNTKQCPCYLAVRECDPDLCLTCGAADHWDS------KNVSCKNC
                                                                                                                                                                                                                                                                                                                                                                                                          SAGH-PTVRKRTDDGKQCYTQYSPC-ACQQMCGKDCPCADKGTCCEKYCGCSKSCKNKFR
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   (first
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entry)
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724 797 664 604 682 558 624 499 504

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                                                                                                                                                                                                                                                            Query Match
Best Local S
Matches 259
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                                                                                                                                                                                                                                                                                                                                                              Sequence
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DB; ADM47813.
                                                                                                                                                                                                                                                               259;
                                                                                                                                                                                                                                                                                                                                                                                                                                  resent sequence represents a polypeptide sequence of the invention. The sequence data for this patent is not provided in the printed incation but is obtained in electronic format from the USPTO website
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CHOMET P S.
LACCETTI L B.
                                                                                                                                                                                                                                                                                    Similarity
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                                                                                                         RTEILNQEWKORR---IQPVHILTSVSSLRGT-----
                                                                                                                                                        QRSKRSDQGMGKDAAAASVVPI-----HANLTQL-
                                                                                                                                                                                                     QTGKKSEKG------PVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILE
                                                       KLEV-NRKTLQRHSCSLFDVAAAAEVAS-RGTDGGNALSQRAAERQCG--SDLANGIGER
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                                                                                                                                                                                                                                                          108;
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Pred. No. 1.1e
08; Mismatches
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The invention relates a recombinant DNA construct comprising a polynucleotide having any of 5544 nucleotide sequences (CDNAs SEQ ID NO: 1-5544) and encoding a polypeptide with any of 5544 amino acid sequences (SEQ ID NO: 5545-11088). The CDNAs and proteins are from corn, soybean, CC Arabidopsis, wheat and rape but the specification does not indicate which consequences is derived from which organism. Also included is a method of CC producing a plant having an improved property, comprising transforming a CC plant with a recombinant DNA construct comprising a promoter region CC functional in a plant cell operably joined to a polynucleotide encoding a CC polypeptide associated with the property, and growing the transformed CC plant. The property is selected from improving plant cold tolerance, for manipulating growth rate in plant cells by modification of the cell cycle CC pathway, for improving plant drought tolerance, for providing increased CC resistence to plant disease, for galactomannan production, for production of plant secombination in plants, for improving plant heat tolerance, for improving plant tolerance to harbicides, for increasing the rate of CC improving plant tolerance to pathogens or pests, for light production, for improving plant tolerance to pathogens or pests, for yield improvement by modification of carbohydrate, nitrogen or phosphorus use and/or uptake CC and for yield improvement by providing improved plant growth and compositions of the present invention are useful in the field of biochemistry and content of particular for producing transperic plants with improved content in particular for producing transperic plants with improved content of the present invention are useful in the field of bio
                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  genetics, in particular for producing transgenic plants with improved biological characteristics such as increased yield, improved nitrogen flow, increasing plant tolerance to cold or heat, improving plant tolerance to extreme osmotic and drought conditions, and improving plant tolerance to plant pests or pathogens. They can also be used in physical arrays of molecules, plant breeding markers, computer-based storage and analysis systems. The present sequence is one of the 5544 plant protein sequences of the invention. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from USPTO at sequence.html?DocID=20040216190.
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KKRITAD--RLTYIK--NRIGENKTNISSYTO----RTYNLS---KNRQISTSKGTDSAS 106
                                                                                           RKRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILERTEILNQEWKQRRIQPVHILTSVS
                                                                                                                                                                                           Conservative 119;
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2003US-00425115.
                                                                                                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                           19.6%; Score 795; DB 8; Length 931; 27.1%; Pred. No. 6.8e-52; tive 119; Mismatches 253; Indels 3
                                                                                                                                                                                           Indels 304;
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	CGEIISODEADRRGKVYDKYMCSFLENLANDEVVDATRKGNKIREANHSVNENCYAKVMM 701 : : : : : : ::: ::: ::	-GAADHMDSKNVSCKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNEFISEY 641 	DSSCPCVIAQNFCEKFCQCSSECQNRFPGCRC-KAQCNTKQCPCYLAVRECDPDLCLTC- 588	TPPRKKKKHRLWAAHCRKIQLKKDGSSNHVYNYQPCDHPRQPC 530	AEASMFRVIJGTYYDNFCAIARLIGTKTCRQVYEFRVKESSIIAPAPAEDVD 486	SSSSEANSR	SDREAGTETGGENNDKEEEEKKDET 404	SRPSTPTINVL-ESKDTD	PCGPQCYQHLEGAKBFAAALTAERIKTPPKRPGGRRRGRLPNNS 362	PNAKSVOREOSIHSFHTLFCRRCFKYDCFLHPFHATPNTYKRKNTETALDNK 318	FPSDKIFEAISSMFPDKGTAEELKEKYKELTEQQLPGALPPECTPNIDG 266	RECGFINDEIFVELVNALGQYNDDDDDDDDDDDDEBREEKQKDLEDHRDDKESRPPRK 217	NAVASVPIMYSWSPLQQN-FMYEDETVLHNIPYMGDEVLDQDGTFIEELIKNYDGKVHGD 160	SLRGTRECSVTSDLDF

Search completed: August 11, 2006, Job time: 149.424 secs 22:21:30 S 밁 8 밁 S 밁 S 밁 S 밁 5 밁 Ś 밁 Ś 片 S 밁 á 밁 5 밁 á 밁 S 맑 S 맑 δ

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Perfect score:
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   protein search, using sw
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Match
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1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
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Gapop 10.0 , Gapext 0.5
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4051
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Copyright (c) 1993 - 2006 Biocceleration Ltd.
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   T47820
T00695
T00695
T114342
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T145661
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T136193
T1385085
T38490
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45	44	43	42	41	40	39	38	37	36	35	3	33	32	31	30
171.5	174	187	189.5	196	198	198	202.5	209.5	214.5	218.5	224	224.5	226.5	226.5	230.5
4.2	4.3	4.6	4.7	4.8	4.9	4.9	5.0	5.2	5. ₃	ت. 4.	წ	s.5	5.6	5.6	5.7
429	2434	2561	1312	401	954	669	898	794	490	490	1590	203	5262	4957	788
N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
C84640	S44861	T24864	T32758	T32348	G86312	P96756	T26577	D84765	T43745	T43700	B87754	T02416	T03454	T03455	C84616
similar to mammali	DNA topoisomerase	hypothetical prote	similar to mammali	clr4 protein - fis	mating-type loci a	protein C43E11.3 [probable SET-domai	ALR protein - huma	ALR protein - huma	similar to mammali					

secrip prote	ed, -ed, -ed, -ed, -espte -esp	5 9/sec
Oy 181 YNDDDDDDDDDDDDDEEREEKOKDLEDHRDDKSSRPPKKPGDEIFVELVNALGQ 180 Oy 181 YNDDDDDDDDDDDDDDDDDBEEREEKOKDLEDHRDDKSSRPPKKPPSKIFBAISSMFPDKGTABEL 240	G0283B cnhancer-of-zeste homolog 2 - human C;Species: Homo sapiens (man) C;Date: 21-Dec-1996 #sequence_revision 06-Jun-1997 #text_change 09-Jul-2004 C;Accession: G0283B R;Antonarakis, S.E. submitted to the EMBL Data Library, February 1996 A;Reference number: H01746 A;Recession: G0283B A;Reference number: MIPROT:Q15910; UNIPARC:UPI000016B348; EMBL:X95653; NID:g1438063 A;Residues: 1-746 <ant- 1-746="" <ant-="" a;recidues:="" a;recidues<="" th=""><th>30 230.5 5.7 788 2 C84616 31 226.5 5.6 5262 7 703455 32 226.5 5.6 5262 2 T03454 33 224.5 5.5 203 2 T02416 34 224 5.5 1590 2 B87754 35 218.5 5.4 490 2 T43740 36 214.5 5.3 490 2 T43745 37 209.5 5.2 794 2 D84765 38 202.5 5.0 898 2 T26577 39 198 4.9 954 2 G86312 40 198 4.9 954 2 G86312 41 196 4.8 401 2 T32348 42 189.5 4.7 1312 2 T32348 43 187 4.6 2561 2 T24864 44 174 4.3 2434 2 S44861 45 171.5 4.2 429 2 C84640 ALIGNMENTS</th></ant->	30 230.5 5.7 788 2 C84616 31 226.5 5.6 5262 7 703455 32 226.5 5.6 5262 2 T03454 33 224.5 5.5 203 2 T02416 34 224 5.5 1590 2 B87754 35 218.5 5.4 490 2 T43740 36 214.5 5.3 490 2 T43745 37 209.5 5.2 794 2 D84765 38 202.5 5.0 898 2 T26577 39 198 4.9 954 2 G86312 40 198 4.9 954 2 G86312 41 196 4.8 401 2 T32348 42 189.5 4.7 1312 2 T32348 43 187 4.6 2561 2 T24864 44 174 4.3 2434 2 S44861 45 171.5 4.2 429 2 C84640 ALIGNMENTS

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submitted to the EMBL Data Library, October 1998
A;Reference number: 226069
A;Accession: T52415
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-856 <BIL>
A;Ross-references: UNIPROT:Q9ZSM8; UNIPARC:UPI000000A5399; EMBL:AF100163; PIDN:AAD09108.
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                                                                                                                                                          DASDILERYNELKLKD-----
                                                                                                                                                                           -----EKYKELTEQQLPGALPPECTPNIDGPNAK-SVQREQ----SLHSFHTLFCRRCF
                                                                                                                                                                                                                  BEPEPEEEKREFSEG----
                                                                                                                                                                                                                                           DDPEEREKOKDLEDHRDDKESRPPRKFPSDKIFEAISSMFPDKGTAEELK-----
                                                                                                                                                                                                                                                                                                                                EDNGNSNMLSSRMRMPLCKLNG-----FSHGVGDRDYVPTKDVISASVKLPIAERIPP
                                                                                                                                                                                                                                                                                                                                                         ECSVTSDLDFFTQVIPLKTLNAVASVPIMYSWSPLQQNFMVEDETVLHNI-----P
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                -GRLPNNSSRP-
                                                                                                                               KYDCFLHPFHATPNTYKRKN---
                                                                                                                                                                                                                                                                         YTTWIFLDRNQRMAE-----DQSVVGRR-----QIYYE-----QHGGETLICSDSE
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                                          KASEEECSKAVSSDVPHAAASGVSLQVÉKTDIGIKNVDSSSGVEQEHGIRGKREVPILKD
                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative 113;
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28.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 828.5;
Pred. No. 1.3
                                                                                                                                                                                                                  -----EDSIIWLIGQEY---GMGEEVQDALCQLLSV
                                                                                                                                                          -KONTEEFSNSGFKLGISLEKGLGAALDSFDNLFCRRCL
                                                                                                                             -TETALDNKPCGPQCYQHLEGAKE-----FAA----
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STPTINVLESKDTDSDREAGTETGGENNDKEEEEEK 400
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701503
hypothetical protein T10M13.3 - Arabidopsis thaliana
hypothetical protein T10M13.3 - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 19-Feb-1999 #sequence_revision 19-Feb-1999 #text_change 24-Mar-1999
C;Accession: T01503
C;Accession: T01503
R;Johnson, A.F; de la Bastide, M.; Lodhi, M.; Hoffman, J.; Hasegawa, A.; Gr
Martienssen, R.; McCombie, W.
submitted to the EMBL Data Library, May 1997
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A; Introns: 48/2; 83/1; 118/3; 207/2; 260/2;
                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
A; Residues: 1-898 <JOH>
A; CROSS-references: UNIPARC: UPI00000A0AC3;
A; Experimental source: cultivar Columbia
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGEIISQDEADRRGKVYDKYMCSFLFNLINNDFVVDATRKGNKIRFANHSVNPNCYAKVMM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          K-----DETSSSSEANSRCQTP-----IKMKPNIEPPENVEWSGAEASMFRVLIG 445
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RLSELKRKIQGERVRSIKEKFEANRKKV------DAHVSP---FSSAASSRATA 145
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                   EEPEPEEEKREFSEG
                                            DDPEEREEKQKDLEDHRDDKESRPPRKFPSDKIFEAISSMFPDKGTAEELK------
                                                                          YTTWI FLDRNQRMAE-
                                                                                                    YMGDEVLDQDGTFIEELIKNYDGKVHGDRECGFINDEIFVELVNALGQYNDDD--DDDDG
                                                                                                                                  EDNGNSNMLSSRMRMPLCKLNG-----FSHGVGDRDYVPTKDVISASVKLPIAERIPP
                                                                                                                                                           ECSVTSDLDFFTQVIFLKTLNAVASVFIMYSWSFLQQNFMVEDETVLHNI------P
                                                                                                                                                                                                                  RLRQLKRFRRADEVKSM----FSSNRQKILERTEILNQEWKQRRIQPVHILTSVSSLRGTR 81
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                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                              20.1%; Score 813.5; DB 2; 29.2%; Pred. No. 1.1e-41; tive 111; Mismatches 270;

    DQSVVGRR

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                   EDSIIWLIGQEY---GMGEEVQDALCQLLSV
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curly leaf protein (polycomb-group) [imported] - Arabidopsis thaliana Nalternate names: curly leaf protein homolog F26B6.3 C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 12-Feb-1999 #sequence_revision 12-Feb-1999 #text_change 02-Fel C;Accession: T01127; A84624 R;Rounsley, S,D.; Kaul, S.; Lin, X.; Ketchum, K.A.; Crosby, M.L.; Brar submittred to the EMBL Data Library, June 1998 A;Bescription: Arabidopsis thaliana chromosome II BAC F26B6 genomic started to the EMBL Data Library, June 1998 A;Reference number: Z14198 A;Reference number: Z14198 A;Accession: T01127
                                                                          Nature 402, 761-768, 1999

A;Title: Sequence and analysis of chromosome 2 of the plant Arabidopsis thaliana A;Reference number: A84420; MUID:20083487; PMID:10617197
                                                                                                                          A;Experimental source: cultivar Columbia
R;Lin, X.; Kaul, S.; Rounsley, S.D.; Shea, T.P.; Benito, M.I.; Town, C.D.; Fujii,
M.; Koo, H.; Moffat, K.S.; Cronin, L.A.; Shen, M.; VanAken, S.B.; Umayam, L.; Tall
euss, D.; Nierman, W.C.; White, O.; Eisen, J.A.; Salzberg, S.L.; Fraser, C.M.; Ver
               A; Molecule type: DNA
A; Residues: 1-902 <STO>
                                               A;Accession: A84624
A;Status: preliminary
                                                                                                                                                                                                             A; Molecule type: DNA
A; Residues: 1-902 < ROU>
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Cross-references: UNIPARC:UPI00000A76B5; GB:AE002093; NID:g3242729; PIDN:AAC23781.1;
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                                                                                                                                                                                                                                                                                                                          K.A.; Crosby, M.L.; Brandon, R.C.;
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                                                                                                                                                                                                                                                                                           F26B6 genomic sequence
                                                                                                                            C.M.; Venter,
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C;Genetics:
A;Gene: At2g23380; I
A;Map position: 2
A;Introns: 21/3; 52,
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VIMVAGDHRVGIFAKERILAGEELFYDYRY
                             VMMVNGDHRIGIFAKRAIQTGEELFFDYRY
                                                                 GEYTGELISHKEADKRGKIYDRENCSFLFNLNDQFVLDAYRKGDKLKFANHSPEPNCYAK
                                                                                   SEYCGEIISQDEADRRGKYYDKYMCSFLFNLANDFVVDATRKGNKIRFANHSVNPNCYAK
                                                                                                                                    --WVIGGDGSLGVPSQRGDNYECRNNKLLLKQQQRVLLGISDVSGWGAFLKNSVSKHEYL
                                                                                                                                                                         DHW--
                                                                                                                                                                                                          ECPCLLNGTCCEKYCGCPKSCKNRFRGCHCAKSQCRSRQCPCFAADRECDPDVCRNC---
                                                                                                                                                                                                                                           SCPCVIAQNECEKECQCSSECQNREPGCRC-KAQCNTKQCPCYLAVRECDPDLCLTCGAA
                                                                                                                                                                                                                                                                                                              HR-----LW---AAHC--RKIQLKKDGSSNHVYNYQPCDHPRQ------PCDS
                                                                                                                                                                                                                                                                                                                                                 LIARNILLSGFKSCWEVFQYMTCSENKASFFGGDGLNPDGSSKFDINGNMVNNQVRRRSRF
                                                                                                                                                                                                                                                                                                                                                                                   AIAR--LIGTKTCRQVYBFRV---
                                                                                                                                                                                                                                                                                                                                                                                                                      CQSNEVASELDAPGSDESLRKEEFMGETVSRGRLATNKLWRPLEKSLFDKGVEIFGMNSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCYKTLLKSGRFPGYGTIEGKTGTSSDGAGTKTTPTKFSSKLNGRKPKTFPSESASSNEK 375
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                                                                                                                                                                                                                                                                           LRRRGKVRRLKYTWKSAAYHSIRKRITEKKD
                                                                                                                                                                                                                                                                                                                                                                                                                                                       -----IEPPENVE----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QCYQHLEGAKEFAAALTAE------RIKTPPKKPGGRRRGRLPNN--SSRPSTPTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EGALDS FDNLFCRRCLVFDCRLHGCSQDLIFPAEKPAPWCP-----PVDENLTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEIFVELVNALGQYNDDDDDDDDDDDPESRESKQKDLEDHRDDKESRPPRKF------
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EQSLHSFHTLFCRRCFKYDCFLH------PFHATPNTYKRKNTETALDNKPCGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -PSDKIFEAISSMFPDKGTAEBLKEKYKBLTEQQLPGALPPECTPNIDGPNAKSV---QR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PVKISLRPIKM-----PDIKRLSPYTTWVFLDRNQRMTB-----DQSVVGRR-----
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27.0%; Pred. No. 1.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -DKEBEBKKDBTSSS-----SEANSRCQTPIKMKPN-----
                                                                                                                                                          --DSKNVSCKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNEFI
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868
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        ----WSGAEASMFRVLIGTYYDNFC
                                                                                                                                                                                                                                                                                                                                                                                   KESSIIAPAPAEDVDTPPRKKKRK 495
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protein MEDEA [imported] - Arabidopsis thaliana (rSpecies: Arabidopsis thaliana (mouse-ear cress) (r) protein MEDEA (rouse-lar cress) (r) protein (rouse-ear cress) (r) protein (r) protei
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A; Residues: 1-689 < GRO>
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Best Local Similarity
Matches 184; Conserv
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                                                                                                         IGSSYLETLNDQLBIDARRKGNEFKFLNHSARPNCYAKLMIVRGDQRIGLFABRAIBEGE
                                                                                                                                                                                                                                            CKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNEFISEYCGEIISQDEADRRGKVYDK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TPPRKKKRKHRLWAAHCRKIQLKKDGSSNHVYNYQPCDHPRQPCDSSCPCVIAQNFCEKF
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                                                                                                                                        CGCSKDCNNRFGGCNCAIGQCTNRQCFCFAANRECDFDLCRSCPLSCGDGTLGETFVQIQ
                                                                                                                                                                                                                                                                                                                                                                               COCSSECONREPGCRCK-ACCNTKOCPCYLAVRECDEDLC----LTCGAADHWDSK-NVS
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  ELPPDYCYGPEHA
                                                   ELFFDYRYSQADA
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A; Declus, r---
A; Molecule type: DNA
A; Molecule type: DNA
A; Residues: 1-775 <WI2>
A; Cross-references: UNIPARC: UDI000017BAPD;
A; Cross-references: Glone R06A4
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A;Reference number: Z19421
A;Accession: T21436
A;Status: preliminary; translated fi
A;Molecule type: DNA
A;Residues: 1-775 <WILL-
A;Residues: 1-775 <WILL-
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A;Accession: T23953
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C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 29-Oct-1999
C;Accession: T21436; T23953
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A; Introns: 223/1; 414/3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Status: preliminary; translated from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     submitted to the EMBL Data Library, November
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R; Barlow, K.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: UNIPARC:UPI000017BAFD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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648
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EAISSMFPDKGTAEELKEKYKELTEQQL-----PGALPP-----ECTPNIDGPNAKSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SPPMIY-WVPIEQSVATEDQLRLTHMPYFGDGI--DDGNIYEHLIDMFFDGIHGFSDNWS 226
QDEADRRGKVYDKYMCSFLFNLNNDFVVDATRKGNKIRFANH-SVNPNCYAKVMMVNGDH
                                                       CGAADHWDSKNVSCKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNEFISEYCGEIIS
                                                                                                                                        DSSCP-CVIAQN-FCEKFCQCSSECQNRFPGCRCKA-QCNTKQCPCYLAVRECDFDLCLT
                                                                                                                                                                                                              VKESSIIAPAPAEDVDTPPRKKKKRKHRLWAAHCRKIQLKKDGSSNHVYNYQPCDHPRQPC
                                                                                                                                                                                                                                                  MSMAENVSARRLKMGQPSN------RLSIKDRVNNFRR-----NOLSQEKAKRK
                                                                                                                                                                                                                                                                                   IKMKPNIE-----PPENVEWSGAEASMFRVLIGTYYDNFCAIARLIGTKTCRQVYEFR
                                                                                                                                                                                                                                                                                                                        FNTYIVEPFCEFV-----
                                                                                                                                                                                                                                                                                                                                                         NNS--SRPSTPTINVLESKDTDSDREAGTETGGENNDKEEEEKKDETSSSSEANSRCQTP
                                                                                                                                                                                                                                                                                                                                                                                            DGKMCSGNCWKSVT-MKEVSEVLVPDSEEILQKEVKIYFMKSRIAKMPIEDGALIVNIYV
                                                                                                                                                                                                                                                                                                                                                                                                                            DNKPCGPOCYOHLEGAKEFAAALTAE-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ------CYACLAYTCAIHGFKAEIPIBFPNGEFYNAMLPLPN-----NPEN--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QREQSLHSFHTLFCRRCFKYDCFLHPFHA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YVNDWILYKLCRAA-----PDVFY
                                    C-KCDAIDSNIIKCRNFGMTRMIQKRTYCGPSKIAGNGLFLLEPAEKDEFITEYTGERIS
                                                                                                         NATAENCACRENGVCSYMCKCDINCSQRFPGCNCAAGQCYTKACQCYRANWECNPMTCNM
                                                                                                                                                                             LRHDSLRIQALRDGLDAEKLIREDDMRDSQRNSEKVRM-----TAVTPITACRH-AGPC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15.3%;
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; Pred. No. 6.8e-30;
89; Mismatches 244
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                                                                                                                                                                                                                                                                                                                          -----KKYVDEDDEESKIRSCRDAYHLM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL: 283120; PIDN: CAB05589.1; GSPDB: GN00020;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 775;
                                                                                                                                                                                                                                                                                                                                                                                                                                 --RIKTPPKRPGGRRRGRLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ----TPNTYKRKNTETAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels 170;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PIDN: CAB04199.1; GSPDB: GN00020;
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ash1 protein - fruit fly (Drosophila melanogaster)
C;Species: Drosophila melanogaster
C;Date: 12-Feb-1998 #sequence_revision 13-Mar-1998 #text_change 09-Jul-2004
C;Accession: $71490; $78442
C;Accession: $71490; $78442
R;Tripoulas, N.; LaJeunesse, D.; Gildea, J.; Shearn, A.
Genetics 143, 913-928, 1996
A;Title: The Drosophila ash1 gene product, which is localized at specific si
A;Reference number: $71490; MUID:96363924; PMID:8725238
A;Accession: $71490
A;Btatus: preliminary; nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-2144 <TRI>A;Cross-references: UNIPROT:Q24189; UNIPROT:Q9VW15; UNIPARC:UPI000017BE7A; ]
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A;Accession: S78442
A;Status: preliminary
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A; Residues: 1-119,'V',121-611,'X'
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 141; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genetics:
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                                                                                                                         1222
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 CKNCSIQRGSKKHLLLAP
                                                       NQGEK--SCLDNCLNR
                                                                                                                                                                                        GLLSNHYKQSLMPPPAKVNKKPGLBEQVGPASLLPPPPYCEKYLRRTEMDFELPYDIWWA
                                                                                                                                                                                                                             QVYEFRVKESSIIAPA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RKKRKVSVEQQTTAVIDEHEPEFDP--DDEPLQSLRETRSSNNVNVQAAPNPPLDCER--
                                                                                     NFCEKFCQCSSECQNRFPGCRCKAQCNTKQCPCYLAVRECDPDLCLTCGAADHWDSKNVS
                                                                                                                                                                                                                                                                                                                                                                                                RGRPRGRKPKNREQAEAAPQPPPKSEPEIRPAKKRGRQPKQPVLEEPPPTPPPQQKKNKM
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                                                                                                                       YTNSKLPTRNVVPSWNYRKIR-----TNVYAESVRPNLAGFDHP-----TCNC---K
                                                                                                                                                                                                                                                            AEAEAKRVDSIPTEHDPLPASESHNPGPQDYASCSESSEDKASTTSLRKLSKVKKTYLVA 1161
                                                                                                                                                                                                                                                                                              AEASMFRV-LIGTYYDNFCA-----
                                                                                                                                                                                                                                                                                                                              EPNIRLPDGIDPNTNFSCKIRLKRRKNLEAGTQPKKBKPVQPVTVBBIPPBIPVSQBBID
                                                                                                                                                                                                                                                                                                                                                                  EEEKKDETSSSSEANSRCQTPIKMKPNIE----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KYDCFLHPFHATPNTYKRKNTETALDNKPCGPQCYQHLEGAKEFAAALTAERIKTPPKRP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7.6%;
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-----SDVAGWGIFIKDPVQKNBFISBYCGBIISQDE-ADR
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Pred. No. 1.6e-10;
0; Mismatches 200
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                                                                                                                                                                                                                          -----PAEDVDTPPRKKKRKHR-----LWAA 501
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EMBL: U49439
                                                   -MVYTECSPS---NCPAGE----K
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N;Alternate names: acute lywporters (man)
C;Species: Homo sapiens (man)
C;Date: 30-Apr-193 #sequence revision 18-Nov-1994 #text_change 09-Jul-2004
C;Accession: A44265; A44264; T58112; I37165; I38485
C;Accession: K44265; A44264; T58112; I37165; I38485
R;TKachuk, D.C.; Kohler, S.; Cleary, M.L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1212-1603, 'GTE' <MAR>
A;Residues: 1212-1603, 'GTE' <MAR>
A;Residues: 1212-1603, 'GTE' <MAR>
A;Residues: UNIPARC: UPI000016A531; EMBL:X83604; NID:g897757; PIDN:CAA58584.1; 1
A;Note: submitted to the EMBL/GenBank/DDBJ databases by R. Marschalek, 20 December 1997
A;Note: submitted to the EMBL/GenBank/DDBJ databases by R. Marschalek, 20 December 1997
A;Note: submitted to the EMBL/GenBank/DDBJ databases by R. Marschalek, 20 December 1997
A;Note: submitted to the EMBL/GenBank/DDBJ databases by R. Marschalek, 20 December 1997
A;Note: submitted to the EMBL/GenBank/DDBJ databases by R. Marschalek, 20 December 1997
A;Note: submitted to the EMBL/GenBank/DDBJ databases by R. Marschalek, 20 December 1997
A;Note: submitted to the EMBL/GenBank/DDBJ databases by R. Marschalek, 20 December 1997
A;Note: submitted to the EMBL/GenBank/DDBJ databases by R. Marschalek, 20 December 1997
A;Note: submitted to the EMBL/GenBank/DDBJ databases by R. Marschalek, 20 December 1997
A;Note: submitted to the EMBL/GenBank/DDBJ databases by R. Marschalek, 20 December 1997
A;Note: submitted to the EMBL/GenBank/DDBJ databases by R. Marschalek, 20 December 1997
A;Note: submitted to the EMBL/GenBank/DDBJ databases by R. Marschalek, 20 December 1997
A;Note: submitted to the EMBL/GenBank/DDBJ databases by R. Marschalek, 20 December 1997
A;Note: submitted to the EMBL/GenBank/DDBJ databases by R. Marschalek, 20 December 1997
A;Note: submitted to the EMBL/GenBank/DDBJ databases by R. Marschalek, 20 December 1997
A;Note: submitted to the EMBL/GenBank/DDBJ databases by R. Marschalek, 20 December 1997
A;Note: submitted to the EMBL/GenBank/DDBJ databases by R. Marschalek, 20 December 1997
A;Note: submitted to the EMBL/GenBank/DDBJ databases by R. Marschalek, 20 December 1997
A;Note: submitted to the EMBL/GenBank/DDBJ databases by R. Marschalek, 20 December 1997
A;Note: submitted to the EMBL/GenBank/DDBJ databases by R. Marschalek, 20 December 1997
A;Note: submitted to the EMBL/GenBank/DDBJ databases by R.
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A;Molecule type: mRNA
A;Residues: 1317-1700, 'DD',1703-1936,'H',1938-2180,'S',2182-2328 <DJA>
A;Cross-references: UNIPARC:UPI000016B134; GB:L01986; NID:g307522; PIDD
R;Marschalek, R.; Greil, J.; Lochner, K.; Nilson, I.; Siegler, G.; Zweo
Br. J. Haematol. 90, 308-320, 1995
A;Title: Molecular analysis of the chromosomal breakpoint and fusion tl
A;Reference number: 137165, MUID:95315013; PMID:7794749
A;Accession: 137165
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A;Map position: 11q23-11q23
A;Introns: 1338/1; 1362/3; 1406/3; 1444/3;
                                                                                                                                                              A;Gene: GDB:MLL; HTX; ALL-1;
A;Cross-references: GDB:12881
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A;Residues: 63-316, 'GLLINSELEK', 327, 'Q', 329, 'VR', 332, 'DKEGTPP', 340, 'T', 342, 'EDKTVVRQSP:
546, 'LQIESTSP', 255-3554, 'N', 3556-3594, 'V', 3596-3899, 'A', 3901-3968 <GU1>
A;Cross-references: UNIPARC:UPI000017C3FE; GB:L04731; NID:g339921
A;Note: sequence extracted from NCBI backbone (NCBIP:117779)
A;Note: sequence extracted from NCBI backbone (NCBIP:117779)
A;Djabali, M.; Selleri, L.; Parry, P.; Bower, M.; Young, B.D.; Evans, G.A.
                                                                                                                                                                                                                                                                                                                                                                                                               A; Residues: 1251-1486, 'G', 1488-1538 < RES > A; Cross-references: UNIPARC: UPI000016A07B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: DNA
A; Residues: 1251-1486, 'G'
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A,Title: A trithorax-like gene is interrupted by chromosome A,Reference number: I58112; MUID:93265134; PMID:1303259
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A;ROBICULE: 1-3968 <TKA>
A;ROBICULE: UNIPARC: UNIPARC: UDIO00017C3FD; G
A;Cross-references: UNIPROT: Q03164; UNIPARC: UDIO00017C3FD; G
A;Cross-references: UNIPROT: Q03164; UNIPARC: UDIO00017C3FD; G
A;Cross-references: UNIPROT: Q03164; UNIPARC: UDIO0017C3FD; G
A;Cross-references: UNIPR
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A;Title: Involvement of a homolog of Drosophila trithorax
A;Reference number: A44265; MUID:93046667; PMID:1423624
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C;Superfamily: histone methyltransferase, tr:
C;Keywords: acute lymphoblastic leukemia; pr
F;1434-1456/Region: zinc finger CCHC motif
F;1479-1506/Region: zinc finger CCHC motif
F;1527-1556/Region: zinc finger CCHC motif
F;1569-1596/Region: zinc finger CCHC motif
F;1873-1900/Region: zinc finger CCHC motif
F;1933-1955/Region: zinc finger CCHC motif
RESULT 9
A48205
All-1 protein +GTE form - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Species: Mus musculus (house mouse)
C;Date: 07-Oct-1994 #sequence_revision 07-Oct-1994 #text_change 22-Ju
C;Accession: A48205; B48205
R;Ma, Q.; Alder, H.; Nelson, K.K.; Chatterjee, D.; Gu, Y.; Nakamura,
Proc. Natl. Acad. Sci. U.S.A. 90, 6350-6354, 1993
A;Title: Analysis of the murine All-1 gene reveals conserved domains
A;Reference number: A48205; MUID:93317679; PMID:8327517
A;Accession: A48205
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131; Conserv
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                                                                                                                                                                                                                                                                                                                NLWNDFVVDATRKGNKIRFANHSVNPNCYAKVMMVNGDHRIGIFAKRAIQTGEELFFDYR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EEEEKKDETSSSSEANSRCQTP---IKMKPNIE------PPENVE-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ASPSVPGPTKPKPKTKRFQLPLDKGNGKKHKVSHLRTSSSEAHIPDQETTSLTSGTGTPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TAERIKTPPKRPGGRRRGRLPNNSSRPSTPTINVLESKDTDS---DREAGTETGGENNDK 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ---ELKEKYK------BLTEQQLPGALPPEC---TPNIDGPNAKSVQREQSL
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                                                                                                                                                                                                                            PPIEDA
                                                                                                                                                                                                                                                            YSQADA
                                                                                                                                                                                                                                                                                                                                                                 TSKEAVGVYRSPIHGRGLFCKRNIDAGEMVIEYAGNVIRSIQTDKREKYYDSKGIGCYMF
                                                                                                                                                                                                                                                                                                                                                                                               GSKKHLLLAPSDVAGWGIFIKDPVQKNEFISEYCGEIISQDEADRRGKVYD-KYMCSFLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CSSECONRFFGCRCKAOCNTKOCFCYLAVRECDFDLCLTCGAADHWDSKNVSCKNCSIQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PLNPHGSARA-EVHLRK-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LKQLSFAGVNGLRMLGILHDAVVFLIEQLSGAKHCRN-YKFRFHK-----PEBANEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LMLWLQQEQKRKESITEKKPKKGLVFEISSDDGFQICAESIEDAWKSLTDKVQEARSNAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ---WSGAEAS------MFRV-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AEAEQQDTASLEQSSQKECGQPAGQVAVLPEVQVTQNPANEQESAEPKTVEEEESNFSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HSFHTLFCRRCFKYDCFLHPFHATPNTYKRKNTETALDNKPCGPQCYQHLEGAKEFAAAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRKKKRKHRLWAAHCRKIQLKKDGSSNHVYNYQPCDHPRQPCDSSCPCVIAQNFCEKFCQ
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nilarity 19.7%;
Conservative 8
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Pred. No. 7.7e-10;
6; Mismatches 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -SAFDMFNFLASKH-ROP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rithorax protein type proto-oncogene; zinc finger
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A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-3869 <HAR>
A;Cross-references: UNIPARC:UPI000017C621; GE
A;Accession: B48205
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-1505,1509-3869 <HA2>
A;Cross-references: UNIPARC:UPI000017C622; GE
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C;Superfamily: histone methyltransferase, trithorax
C;Keywords: alternative splicing; zinc finger
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Similarity 21.2%;
                                                                                                                                                                                                                                                                                                                                                            GVEQPSQKECGQPAGPVAALPEVQATQNPANEQENAEPKAMEEEESGFSSPLMLWLQQEQ 3554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ---BLKEKYK----
KPKAKRIQLPLDKGSVKKHKVSHLRTSSEAHIPHRDTDPAPQPSVTRTPRAN-REQQDAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ALTAERIKTPPKRPGGRR------RGRLPNNSSRPS-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TLPSAKP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PPGEAEEHYKLORGNQLLAGKTGTLTSORDRDDDSAPGTOPSIFTOTAEAPNGVSLEONK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QDQPVALPPS-----SGMPPQLGTSQTPSAAAMTAASSICVLPSSQTAGMTAAS
                                                                                                                                                                                                          LWAAHCRKIQLKKDGSSNHVYNYQPCDHPRQPCDSSCPCVIAQNFCEKFCQCSSECQNRF 557
                                                                                                                                                                                                                                         NGLRMLGILHDAVVFLIEQLAGAKHCRN-YKFRFHK-----PEEANEPPLNPHGSAR
                                                                                                                                                                                                                                                                ----LIGTYYDNFC-AIARLIGTKTCRQVYSFRVKESSIIAPAPAEDVDTPPRKKKKKKHR
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                                                                                                                      ----ARRATSMDLPMPMRFRH----------LKKTSKEAVGVY 3734
                                                                                                                                                PGCRCKAQCNTKQCPCYLAVRECDPDLCLTCGAADHWDSKNVSCKNCSIQRGSKKHLLLA 617
                                                                                                                                                                                                                                                                                                    KRKESITERKPKKGLVFEISSDDGFQICAESIEDAWKSLTDKVQEARSNARLKQLSFAGV
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; Pred. No. 9.8e-10;
84; Mismatches 206
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RESULT 10
T41282
probable transcription silencing protein - fission year cyspecies: Schizosaccharomyces pombe
C;Species: O3-Dec-1999 #sequence_revision O3-Dec-1999 #to
C;Accession: T41282
R;Murphy, L.; Harris, D.; Wood, V.; Rajandream, M.A.; submitted to the EMBL Data Library, April 1999
A;Reference number: Z21984
A;Accession: T41282

M.A.;

#text_change уеавс

09-Jul-2004

(Schizosaccharomyces

pombe)

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A;Status: preliminary; translated from GB
A;Molecule type: DNA
A;Residues: 1-920 <MUR>
A;Cross-references: UNITROT:09Y7R4; UNIDA
A;Experimental source: strain 972h-; cosm
C;Genetics:
A;Gene: SPDB.SPCC306.04c
A;Map position: 3
RESULT 11
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                                                                                                DATRKGNKIRFANHSVNPNCYAKVMMVNGDHRIGIFAKRAIQTGBBLFFDYRY-SQADAL
                                                                                                                              PSRIHTLGLPAMENIDKNDMVIEYIGEIIRQRVADNREKNYVREGIGDSYLFRIDEDVIV
                                                                                                                                                                                                                       PDLCLTCGAADHWDSKNVSCKN-
                                                                                                                                                                                                                                                                               PCDHPROPCDSSCPCVIAQNFCEKFCQCSSECQNRFPGCRCKAQCNTKQCPCYLAVRECD
                                                                                                                                                                                                                                                                                                              DYSYLQEALKDEPLMDINDP-----NFWAYERKSCKFK-----NGDVKYGDTAILPE
                                                                                                                                                                                                                                                                                                                                                                      KEIDEVLALAPKWRINEFDETGSVYYGALPYNYPEDDVLLDLDG-----LQYLVKNDS
                                                                                                                                                                                                                                                                                                                                                                                                   ENVEWSGARASMFRV------LIGTYYDNFCAIARLIGTKTCRQVYEFRVKE--
                                                                                                                                                                                                                                                                                                                                                                                                                                ENDKFHRFRTKSKISKKKYEKMEVDYTSSSETESDASILSPSAAIPKSGSAIKDELISPK
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VYYTDIKHHFRKFLYEKIYMKDGFYI--TFNNY-----REASNCYRALDRTYVQNCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TVLHNI-----PYMGDEV-LDQDGTFIBELIKNYDGKVHGDRE----CGFINDEIFVELVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ----ILTSVSSLRGTRECSVTSDLDFPTQVIPLKTLNAVASVPIMYSWSPLQQNFMVEDB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QKQRFEREDE-----SSRQKL---SAAMNEDIPPWRQPSKNSQTLSNGDLQHSKVQNVD
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                                                                                                                                                             PSDVAGWGIFIKDPVQKNBFISBYCGBIISQDBADRRGKVY--DKYMCSFLFNLNNDFVV
                                                                                                                                                                                          ----TIDTISHSTSRITSRMNRVNNRRLAAGVEKSQLPAEADLLRFNALKARKKQLHFG
                                                                                                                                                                                                                                                                                                                                         ----SSIIAPAPAEDVDTPPRKKKRKHRLWAAHCRKIQLKKDGSSNHVYNY-----Q
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Pred. No. 2.3e-10;
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protein

YHR119w

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yeast (Saccharomyces cerevisiae)

RESULT 12 H88444

protein C26E6.12 [imported] - Caenorhabditis C;Species: Caenorhabditis elegans C;Date: 10-May-2001 #sequence_revision 10-May C;Accession: H88444 R;anonymous, The C. elegans Sequencing Consor Science 282, 2012-2018, 1998

10-May-2001 Consortium

#text_change

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A; Description: The sequence of S. cerevisiae
A; Reference number: $46676
A; Accession: $48961
A; Molecule type: DNA
A; Residues: 1-1080 < LAT>
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C;Date: 02-Dec-1994 #sequence_revisi
C;Accession: S48961
R;Latreille, P.
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A;Map position: 8R
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                                                                                                                                            CGAADHWDSKNVSCKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNEFISBYCGEIIS
RRIVIYALRDIAASEELTYDYKFER
               HRIGIFAKRAIQTGBBLFFDYRYSQ
                                                           QPVAEMREKRYLKNGIGSSYLFRVDENTVIDATKKGGIARFINHCCDPNCTAKIIKVGGR
                                                                                        QDEADRRGKVYDK--YMCSFLFNLNNDFVVDATRKGNKIRFANHSVNPNCYAKVMMVNGD
                                                                                                                       --AAIGTESELLSLNOLNKR----KKPVMFARSAIHNWGLYALDSIAAKEMIIEYVGERIR
                                                                                                                                                                                  EPSDS-----VPQ-----EVSSSRDNRASNRRFQQDIEAQK-----
                                                                                                                                                                                                              QPCDSSCPCVIAQNFCEKFCQCSSECQNRFPGCRCKAQCNTKQCPCYLAVRECDPDLCLT
                                                                                                                                                                                                                                            ELOPGSSFKAEGFRKIADKLKINYLPHRRRVHQPLNTVNIHNERNEYTPELCORBESSNK
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Pred. No. 5.9e-10;
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A;Title: Genome sequence of the nematode C. elegans: a platform for investigating biolog A;Reference number: A75000; MUID:99069613; PMID:9851916
A;Note: see websites genome.wustl.edu/gsc/C elegans/ and www_sanger.ac.uk/Projects/C elegans/ and
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RSLVAEBREKAYERRGIGSSYLFRIDLHHVIDATKRGNFARFINHSCQPNCYAKVLTIEG
                                                                                                                                                                                                                                                                                                                                    LRAALNEMOSEVKSADELPWKKMLTFKEMLRSEDPLLRLNPIRSKKGLPDAFYEDEELDG
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                                                   SQDEADRRGKVYDK--YMCSFLFNLNNDFVVDATRKGNKIRFANHSVNPNCYAKVMMVNG
                                                                                                          QRRLLTSLGDANNDFFKINOLKFRKKMIKFARSRIHGWGLYAMBSIAPDEMIVEYIGQTI
                                                                                                                                                                                                                       VIPVAAGCSRARPYEKMTMKQKRSLVRRPDNESHPTAIFSERDETAIRHQHLASKDMRLL
                                                                                                                                                                                                                                                                                                                                                                                                                                              -PYEYYEPPPTKRPAPP-----PRFKKTFKPRSEEEKKKIIGDCEDLPDLEDQWY 1517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SSNHVYNYQPCDHPRQPCDSSCPCVIAQNFCEKFCQCSSECQNRFPG-CR------
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AE-----DVDTPPRKKKRKHRLWAAHCRKIQLKKDG 512
                                                                                                                                                                   KKHLLLAPSDVAGWGIFIKDPVQKNEFISEYCGEII
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                                                                                                                                                                                                                                                                                                                                                                                          ---VRECDPDLCLT-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -PENVEWSGARASMFRVLIG 445
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RyTheologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.; Alonso Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar, K. ansen, N.F.; Hughes, B.; Huizar, L. Nature 408, 816-820, 2000

A; Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C.A.; Li, J.H.; Li, Y.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marziali Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H. Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H. A; Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon, Rer, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W. A; Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.

A; Reference number: A86141; MUID:21016719; PMID:11130712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    unknown protein F28016.8 [imported] - Arabidopsis thaliana C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: UNIPROT:Q9SRE2; UNIPARC:UPI00000A4C99; GB:AE005173; NID:g6143888; P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
A; Residues: 1-528 <STO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C; Accession: E96795
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  position:
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                                                                                                                                                                                                                                                                                                                                                                                                                                      516 HVY--NYOPCDHPROPCDSSCPCVIAONFCEKFCQCSSECQNRPPGCRCKAQCNTKQCPC
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   171
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RPNCETRKWNVLGEVRVGIFAKESISPRTELAYDYNF
                                   NPNCYAKVMMVNGDHRIGIFAKRAIQTGEELFFDYRY
                                                                                                                                                                                                                                                                                                                 YLAVRECDPDLCLTCGAADHWDSKNVSCKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQ 633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DHRIGIFAKRAIQTGEELFFDYRYSQAD
                                                                                                                           AGQFIMEYCGEVISWKEAKKRAQTYETHGVKDAYIISLNASEAIDATKKGSLARFINHSC 170
                                                                                                                                                                                                                                                                                                                                                                              HIYQNDFSYRKHKKQKEEDISICECKFDFGDPDSACGERCLNVI----TNTECTPGYCPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6.9%; Score 280; DB 2;
29.0%; Pred. No. 1.3e-09;
tive 33; Mismatches 89;
                                                                                                                                                                                                                                                      -GVYCKNQKFQKCEYAKTKLIKCEGRGWGLVALEEIK
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RESULT 14
T00458
T00458
Appothetical protein T14N5.15 - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cross)
C;Date: 01-Feb-1999 #sequence_revision 01-Feb-1999 #text_change 09-Jul-2004
C;Accession: T00458
R;Federspiel, N.A.; Palm, C.J.; Conway, A.B.; Kurtz, D.B.; Conway, A.R.; Au, M.; Araujc
; Vysotskala, V.S.; Yu, G.; Ecker, J.; Theologis, A.; Davis, R.W.
submitted to the EMBL Data Library, September 1998
A;Reference number: Z14152
A;Accession: T00458
A;Reference number: DNA
A;Residue: translated from GB/EMBL/DDBJ
A;Genetic type: DNA
A;Residues: 1-1767 <FED>
A;Cross-references: UNIPROT:080663; UNIPARC:UPI00000A0D38; EMBL:AC004260; NID:g3176694,
A;Experimental source: cultivar Columbia
C;Genetics:
A;Gene: ATSP:T14N5.15
A;Introns: 823/1; 891/2; 949/1; 975/3; 1019/3; 1058/3; 1089/3; 1115/3; 1134/3; 1339/1;
A;Introns: 823/1; 891/2; 949/1; 975/3; 1019/3; 1058/3; 1089/3; 1115/3; 1134/3; 1339/1;
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TAT820

TAT820

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TAT820

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TAT820

C;Species: Arabidopsis thaliana (mouse-ear cress)

C;Species: Arabidopsis thaliana (mouse-ear cress)

C;Bate: 20-Apr-2000 #sequence_revision 20-Apr-2000 #text_change 09-Jul-2004

C;Accession: TAT820

C;Accession: TAT820

R;D'Angelo, M.; Vezzi, A.; Modesto, D.; Pigazzi, M.; Valle, G.; Mewes, H.W.

submitted to the Protein Sequence Database, February 2000
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Matches 172;
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                                                                                                                                                                                                                                      IFAKRAIQTGEELFFDYRY
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                                                                                                                                                                                                                                                                                                                                                                                               WDSKNVSCKNCSIORGSKKHLLLAPSDVAGWGIFIKDPVQKNEFISEYCGEIISQDEADR 653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FCEKFCQ-----CSSECQNRFPGCRCKAQCNTKQCPCYLAVRECDPDLCLTCGAADH 593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DVDTPPRKKKRKHRLWAAHCRKIQLKKDGSSNHVYNYQPCDHPR--QPCDSSCPCVIAQN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NVEWSGAEASMERVLIGTYYDNFC---AIARLIGTKTCRQVYEFRVKESSIIA--PAPAE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HPFHATPNTYKRKVTETALDNKPCGPQCYQHLEGAKEFAAALT------AERIKT
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                                                                                                                                                                                                                                                                                   ROKEYAFKGOKHF--YFMTLNGNEVIDAGAKGNLGRFINHSCEPNCRTEKWMVNGEICVG
                                                                                                                                                                                                                                                                                                                     RGKVY----DKYMCSFLFNLNNDFVVDATRKGNKIRFANHSVNPNCYAKVMMVNGDHRIG
                                                                                                                                                                                                                                                                                                                                                             -----LCSNQQFQKRKYVKFERFQSGKKGYGLRLLEDVREGQFLIEYVGEVLDMQSYET
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20.0%; Pred. No. 5.8e
tive 118; Mismatches
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                              Mewes, H.W.;
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A;Reference number: Z24477
A;Accession: T47820
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-352 <DAN>
A;Residues: 1-352 <DAN>
A;Coss-references: UNIPROT:Q9MIX9; UNIPARC:UPI000009D135; EMBL:AL138647
A;Experimental source: cultivar Columbia; BAC clone F24G16
C;Genetics:
A;Map position: 3
A;Introns: 6/3; 47/1; 84/2; 117/3; 144/1; 201/2; 228/2; 278/3; 312/3; 3;Note: F24G16.230
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Search completed: Job time: 38.427 August 11, secs 2006, 22:29:06

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Q99F174 MOUSE
Q571L15 MOUSE
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FUNCTION: May be involved in the regulation of gene transcription

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GO; GO:0003677; F:establishment and/or maintenance of chromat. . .; T

GO; GO:0006325; P:establishment and/or maintenance of chromat. . .; T

R GO; GO:0006355; P:regulation of transcription, DNA-dependent; TAS.

R InterPro; IPR001205; Kyb DNA bd.

R InterPro; IPR001214; SET.

R Pfam; PF00856; SET; 1.

R Pfam; PF00856; SET; 1.

R SMART; SM00717; SAT; 1.

R SMART; SM00717; SET; 1.

R PROSITE; PS50280; SET; 1.

R PROSITE; PS50280; SET; 1.

R PROSITE; PS50280; SET; 1.

Transcription regulation.

Transcription regulation.

Thancer of zeste homolog 2.
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HSSP; Q8X225; 1ML9.
TRANSPAC; T04888; -
Ensembl; ENSG00000106462; H
HGNC; HGNC:3527; EZH2.
MIM; 601573; gene.
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U61145; AAC51520.1; -;
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  KPN1EPPENVEWSGAEASMFRVL1GTYYDNFCA1ARL1GTKTCRQVYEFRVKESS11APA
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; Mismatches 0;
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19-JUL-2005, sequence version 1.
10-FEB-2006, entry version 5.
10-FEB-2006, entry version 5.
10-FEB-2006, entry version 5.
11-JUL-2006, entry version 5.
12-Setis cDNA clone: QteA-18821, similar to human enhancer bestis cDNA clone: QteA-18821, transcript variant 2,.
13-JUL-2006, entry version 5.
14-JUL-2006, entry version 5.
15-JUL-2006, entry version 5.
15-JUL-2006, entry version 6.
15-JUL-2006, entry vers
                                                                               EMBL; AB179385; BAB02436.1; -; mRNA.
GO; GO:0005634; C:nucleus; IEA.
GO; GO:0003677; F:DNA binding; IEA.
InterPro; IPR0011005; Myb_DNA_bd.
InterPro; IPR001214; SET.
Pfam; PF00856; SET; 1.
SMART; SM00317; SET; 1.
PROSITE; PS50280; SET; 1.
PROSITE; PS50280; SET; 1.
SEQUENCE 746 AA; 85333 MW; 169421:
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PubMed=15944441; DOI-10.1093/molbev/msil87;
PubMed=15944441; DOI-10.1093/molbev/msil87;
Osada N., Hirate M., Tanuma R., Kusuda J., Hida M., Suzuk
Osada N., Gojobori T., Shen C.-K.J., Wu C.I., Hashimoto
"Substitution Rate and Structural Divergence of 5'UTR Bvo
Comparative Analysis Between Human and Cynomolgus Monkey
Mol. Biol. Evol. 22:1976-1982(2005).
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TISSUE=Pancreas;

MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

Klausner R.D., Collins F.S., Wagner N., Shenmen C.M., Schuler G.D.,

Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
                                                                                                                                                                                                                                                        Homo sapiens (Human)
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                NUCLEOTIDE
                                                                                                                                                                                                        NCBI_TaxID=9606
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RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.B.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
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RA Richards S., Worley D.M., Sodergren B.J., Lu X., Gibbs R.A.,
RA Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton B., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Hinting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Hinting M., Walan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.B.,
RA Schnerch A., Schein J.B., Jones S.J.M., Marra M.A.;
"Generation and initial analysis of more than 15,000 full-length human
rand mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
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Best Local Sim
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InterPro; IPR001214; SET.
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GO:0005634; C:nucleus; IEA.
GO:0003677; F:DNA binding;
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RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,

RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

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RA Richards S., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

RA Richards S., Helton S., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

RA Pahey J., Helton S., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

RA Willalon D.K., Marny D.M., Sodergren E.J., Lu X.,

RA Willalon D.K., Touchman J.W., Green E.D., Dickson M.C.,

RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

RA Blakesley R.W., Touchman J.W., Schmutz J., Myers R.M.,

RA Rodriguez A.C., Grimwood J., Schmutz J., Wyers R.M.,

RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,

RA Rodriguez A.C., Grimvood J., Jones S.J.M., Marra M.A.;

"Generation and initial analysis of more than 15,000 full-length human

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Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
Muroidea; Muridae; Murinae; Mus.
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GO; GO:0003682; F:chromatin binding; IDA.
GO; GO:00042054; F:histone methyltransferase ac:
GO; GO:0042054; F:histone methyltransferase ac:
GO; GO:005155; F:procein binding; IPI.
GO; GO:0016571; P:histone methylation; IDA.
GO; GO:0015154; P:negative regulation of stria:
InterPro; IPR001214; SET.
InterPro; IPR001214; SET.
Pfam; PF00856; SET; 1.
SMART; SM00717; SANT; 2.
SMART; SM00317; SET; 1.
PROSITE; PS0280; SET; 1.
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GG; GO:0045120; C:pronu
GO; GO:0003682; F:chrom
GO; GO:0042054; F:histo
GO; GO:005515; F:prote
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Pred. No. 9.9e-228;
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GO; GO:0045120; C:pyronucleus; IDA.

GO; GO:0003682; F:chromatin binding; IDA.

GO; GO:0003682; F:chromatin binding; IDA.

GO; GO:0042054; F:histone methyltransferase activity;
GO; GO:0016571; F:pyrotein binding; IPI.

GO; GO:0016571; P:histone methylation; IDA.

GO; GO:0016571; P:histone methylation; IDA.

GO; GO:0016571; P:histone methylation of striated mus
InterPro; IPR001005; Myb_DNA_bd.

InterPro; IPR001104; SET.

Pfam; PP00856; SET; 1.

SMART; SM00317; SANT; 2.

SMART; SM00317; SANT; 2.
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TISSUB-Embryonic tail;

TISSUB-Embryonic tail;

Okazaki N., Kikuno R.F., Ohara R., Inamoto S., Koseki H., Hir Saga Y., Nagase T., Ohara O., Koga H.;

Saga Y., Nagase T., Ohara O., Koga H.;

"prediction of the Coding Sequences of Mouse Homologues of KI The Complete Nucleotide Sequences of Mouse KIAA-homologous cD Identified by Screening of Terminal sequences of CDNA Clones Sampled from Size-Fractionated Libraries. ";

Submitted (FEB-2005) to the EMBL/GenBank/DDBJ databases.
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Name=Exh2; Synonyms=mKIAA4065;
Mus musculus (Mouse).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Buarchontoglires; Glires; Rodentia; Sciurognal
Maroidea; Muridae; Murinae; Mus.
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Pred. No. 1e-227;
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Attribution-NoDerivs License
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P NUCLEOTIDE SEQUENCE OF 134-497.

C STRAIN=129/Sv;

X MEDLINE=99160476; PubMed=10051331; DOI=10.1007/s003359900993;

Laible G., Haynes A.R., Lebersorger A., O'Carroll D., Mattei M.-

A Denny P., Brown S.D.M., Jenuwein T.;

"The murine polycomb-group genes ezhl and ezh2 map close to hox

T clusters on mouse chromosomes 11 and 6.";

L Mamm. Genome 10:311-314(1999).

C -!- FUNCTION: May be involved in the regulation of gene transcri

C -!- SUBCHLULAR LOCATION: Nucleus (Probable).

C -!- SUBCELLULAR LOCATION: Nucleus (Probable).
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                                                                                                                                                                                                                                                                                                                                                                               Mech.
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MEDLINE=97014262; PubMed=8861097; DOI=10.1016/0925-4773(96)00499-6;
Hobert O., Sures I., Clossek T., Fuchs M., Ullrich A.;
"Isolation and developmental expression analysis of Enx-1, a novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
Muroidea; Muridae; Murinae; Mus.
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"Isolation and developmental
mouse Polycomb group gene.",
Mech. Dev. 55:171-184(1996).
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GO; GO:0003682; F:chromatin binding; IDA.
GO; GO:0003682; F:chromatin binding; IDA.
GO; GO:0042054; F:histone methyltransferase activity; IDA.
GO; GO:0005515; F:protein binding; IPI.
GO; GO:0016571; P:histone methylation; IDA.
GO; GO:0051154; P:negative regulation of striated muscle cell. .
InterPro; IPR001005; Myb_DNA_bd.
InterPro; IPR001214; SZT.
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ITISSUE SPRCIFICITY: Widely expressed in early embryos. In later embryogenesis, expression restricted to central and peripheral nervous system, liver and thymus. In adult, highest expression spleen, testis and placenta. Lower levels in intestine and musc. and very low levels in brain and liver. No expression in heart, thyroid gland, lung and kidney.

IDEVELOPMENTAL STAGE: Expressed in both adult and embryo with highest levels in early embryogenesis.

SIMILARITY: Belongs to the EZ family.
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LinkHub; Q61188; -.
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Alternative splicing; DNA-binding; Nuclear protein; Phosphorylation;
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SET.

Nuclear localization signal (Potential).

Cys-rich.

Cys-rich.

Phosphothreonine (By similarity).

DGSSNHYVNYOPCDHPROPCDSSCPCVIAQNFCEKFCQCSS

EC. - G (in isoform ENX-1B).
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  PubMed=16141072; DOI=10.1126/science.1112014; Carninci P., Kasukawa T., Katayama S., Gough J., Frith M.C., Maeda N. Oyama R., Ravasi T., Lenhard B., Wells C., Kodzius R., Shimokawa K., Bajic V.B., Brenner S.E., Batalov S., Forrest A.R., Zavolan M., Bayic V.B., Wilming L.G., Aidinis V., Allen J.E., Ambesi-Impiombato A., Apweller R., Aturaliya R.N., Bailey T.L., Ambesi-Impiombato A., Apweller R., Aturaliya R.N., Bailey T.L., Bansal M., Baxter L., Beisel K.W., Bersano T., Bono H., Chalk A.M., Chiu K.P., Choudhary V., Christoffels A., Clutterbuck D.R., Crowe M.L., Dalla B., Dalrymple B.P., de Bono B., Della Gatta G., di Bernardo D., Down T., Engstrom P., Fagiolini M., Fallkner G., Pletcher C.F., Fukushima T., Furuno M., Futaki S., Gariboldi M., Georgii-Hemming P., Gingeras T.R., Gojobori T., Green R.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Euarchontoglires; Glires; Rodentia; Sciurognathi; Muroidea; Muridae; Murinae; Mus.
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Erythroblast cDNA, RIKEN full-length clone; KOC0026B09 product: enhancer of
                                                                                                                                                                                                                                                                                                                                                           MEDLINE=99279253; PubMed=10349636; Carninci P., Hayashizaki Y.; "High-efficiency full-length cDNA c Methods Enzymol. 303:19-44(1999).
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RA Mikaido I., Osato N., Saito R., Suzuki H., Yamanaka I., Kiyosawa H.,
RA Nikaido I., Osato N., Hasegawa Y., Nogami A., Schonbach C., Gojobori T.,
RA Nikaido I., Osato N., Hasegawa Y., Nogami A., Schonbach C., Gojobori T.,
RA Yagi K., Tomaru Y., Hasegawa Y., Nogami A., Ouackenbush J.,
RA Yagi K., Tomaru Y., Hasegawa Y., Nogami A., Ouackenbush J.,
RA Hake J.A., Bradt D., Brusic V., Chothia C., Corbani L.B., Cousins S.,
RA Blake J.A., Bradt D., Brusic V., Chothia C., Corbani L.B., Cousins S.,
RA Gassterland T., Gariboldi M., Gissi C., Godzik A., Gough J.,
RA Grimmond S., Gustincich S., Hirokawa N., Jackson I. J., Jarvis B.D.,
RA Kanai A., Kawaji H., Kawasawa Y., Kedzierski R.M., King B.L.,
RA Kanai A., Kawaji H., Kawasawa Y., Kedzierski R.M., King B.L.,
RA Maglott D.R., Maltais L., Marchionni L., McKenzie L., Miki H.,
RA Nagashima T., Numata K., Okido T., Pavan W.J., Pertea G., Pesole G.,
RA Ravasi T., Reed J.C., Reed D.J., Reid J., Ring B.Z., Ringwald M.,
RA Ravasi T., Reed J.C., Reed D.J., Reid J., Ring B.Z., Ringwald M.,
RA Sultana R., Takenaka Y., Taylor M.S., Teasdale R.D., Tomita M.,
RA Wilming L.G., Wynshaw-Boris A., Yanagisawa M., Yang I., Yang I.,
RA Hirozane-Kishikawa T., Konno H., Nakamura M., Sakazume N., Sakai K., Sashai K., 
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RA Jakt M., Kanapin A., Katoh M., Kawaawa Y., Kalso J., Kitamura H.,
RA Kitano H., Kollias G., Krishnan S.P., Kruger A., Kummerfeld S.K.,
RA Kitano H., Kollias G., Krishnan S.P., Kruger A., Kummerfeld S.K.,
RA Kitano H., Kollias G., Krishnan S.P., Kruger A., Kummerfeld S.K.,
RA Kitano H., Matcuzawa S., Miki H., Mignone F., Miyake S., Morris K.,
RA Mitsuda H., Matcuzawa S., Miki H., Mignone F., Miyake S., Morris K.,
RA Mottagui-Tabar S., Mulder N., Nakano N., Nakauchi H., Ng P.,
RA Milsson R., Nishiguchi S., Nishikawa S., Nori F., Ohara O.,
RA Nilsson R., Nishiguchi S., Nishikawa S., Nori F., Ohara O.,
RA Nilsson R., Nishiguchi K., Sandelin A., Schneider C.,
RA Rost B., Ruan Y., Salzberg S.L., Sandelin A., Schneider C.,
RA Schonbach C., Sekiguchi K., Semple C.A., Seno S., Sessa L., Sheng Y.,
RA Schonbach C., Sekiguchi K., Semple C.A., Seno S., Sessa L., Sheng Y.,
RA Sperling S., Stupka B., Sugiura K., Silva D., Sinclair B.,
RA Sperling S., Stupka B., Sugiura K., Sultana R., Takenaka Y., Taki K.,
RA Tammoja K., Tan S.L., Tang S., Taylor M.S., Tegner J., Teichmann S.A.,
RA Yamanishi H., Zabarovsky E., Zhu S., Zimmer A., Hide W., Bult C.,
RA Wahlestedt C., Mattick J.S., Mushio R., Wai C., Sasaki D., Tomaru Y.,
RA Wahlestedt C., Mattick J.S., Moh., Kato T., Kawaji H., Kawagashira N.,
RA Kawashima T., Kojima M., Kondo S., Konno H., Nakano K., Ninomiya N.,
RA Rayashiraki Y.,
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RT Teretrictional landscane of the mammalian genome "."
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                                                                                                                                                                                                                                                                                  Birney E., Hayashizaki Y.;
"Analysis of the mouse transcriptome
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STRAIN=C57BL/6J,
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PubMed=11217851; DOI=10.1038/35055500
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3 (2002).
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ARA Arakawa T., Hara A., Pukunishi Y., Konno H., Adachi J., Fukuda S.,
A Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
ARA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
Bakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
Ra Blake J., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
Ra Blake J., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
Ra Blake J., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
Ra Blake J., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
Ra Blake J., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
Ra Blake J., Okido T., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
Ra Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
Ra Iyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
Ra Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
Ra Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
Ra Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
Ra Sasaki H., Sato K., Schoenbach C., Seya T., Kawaji H., Kohtsuki S.,
Hayashizaki Y., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
Na Hayashizaki Y., Storch M., Kohtsuki S.,
                                                                                                   MGI; MGI:107940; Ezh2.

GO; GO:0045120; C:pronucleus; IDA.
GO; GO:0003682; F:chromatin binding; IDA.
GO; GO:0003682; F:histone methyltransferase aci
GO; GO:0042054; F:histone methyltransferase aci
GO; GO:005515; F:protein binding; IPI.
GO; GO:0016571; P:histone methylation; IDA.
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InterPro; IPR001005; Myb_DNA_bd.
InterPro; IPR001214; SET.
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MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;
MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;
Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,
Shibata K., Itoh M., Aishi K., Kitsunai T., Tashiro H., Itoh M.,
Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A.,
Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,
Pujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M.,
Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,
Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.,
"RIKEN integrated sequence analysis (RISA) system=384-format
sequencing pipeline with 384 multicapillary sequencer.";
Genome Res. 10:1757-1771(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Kawai J., S...
                                        Pfam; PF00856; SET; 1.
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SMART; SM00317; SET; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Arakawa T., Carninci P., Fukuda S., Hashizume W., Hayashida K., Hori F., Iida J., Imamura K., Imotani K., Itohu M., Kanagawa S., Kawai J., Kojima M., Konno H., Murata M., Nakamura M., Ninomiya N., Nishiyori H., Nomura K., Ohno M., Sakazume N., Sano H., Sasaki D., Shibata K., Shiraki T., Tagami M., Tagami Y., Waki K., Watahiki A., Murahizahi Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDILINE-20499374; PubMed=11042159; DOI=10.1101/gr.145100; Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., Itoh Konno H., Okazaki Y., Muramatsu M., Hayyashizaki Y.; "Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes Genome Res. 10:1617-1630(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                  Muramatsu M., Hayashizaki Y.;
Submitted (MAR-2004) to the EMBL/GenBank/DDBJ databases.
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STRAIN=C57BL/6J;
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Hayashizaki Y.;
"Functional annotation of
Nature 409:685-690(2001).
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13-SEP-2004,
13-SEP-2004,
13-SEP-2006,
                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurogna
Muroldea; Muridae; Musinae; Mus.
NCBI_TaxID=10090;
  NUCLEOTIDE SEQUENCE
                                                                   Mus musculus (Mouse).
                                                                                 Bzh2 protein.
Name=Bzh2;
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Pred. No. 3.3e-227;
7; Mismatches 6;
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Matches
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GO; GO:00045120; C:pronucleus; IDA.
GO; GO:0003682; F:chromatin binding; IDA.
GO; GO:000515; F:histone methyltransferase act
GO; GO:000515; F:protein binding; IPI.
GO; GO:0051154; P:nistone methylation; IDA.
GO; GO:0051154; P:negative regulation of striat
InterPro; IPR001105; Myb_DNA_bd.
InterPro; IPR001114; SET.
Pfam; PF00856; SET; 1.
SMART; SM00317; SET; 1.
SMART; SM00317; SET; 1.
PROSITE; PS50280; SET; 1.
SEQUENCE 742 AA; 84934 MW; A9CDB80ACB2C6D68
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GO; GO:0045120; C:pronucleus; IDA.
GO; GO:003682; F:chromatin binding; GO; GO:0005515; F:protein binding; GO; GO:0016571; P:histone methyltrigo; GO:0016571; P:histone methylatigo; GO:0016571; P:histone 
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Director MGC Project;
Submitted (AUG-2004) to the EMBL/GenBank/DDBJ
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Pred. No. 3.5e-223;
7; Mismatches 6;
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Attribution-NoDerivs License
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Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,

A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

A Hopkins R.F., Jordan H., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

A Stapleton M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,

A Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

A Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

AN Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
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Q5XH80;
23-NOV-2004,
23-NOV-2004,
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
Xenopodinae; Xenopus; Xenopus.
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InterPro; IPR001005; Wyb D
InterPro; IPR001214; SET.
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SMART; SM00717; SANT; 2.
SMART; SM00317; SET; 1.
PROSITE; PS50280; SET; 1.
SEQUENCE 748 AA; 85555;
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Submitted
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GO:0005634; C:nucleus; IBA.
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SMART; SM00717; SANT; 2.
SMART; SM00317; SET; 1.
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MEDLINE=21184113; PubMed=11287189; DOI=10.1016/S0925-4773(01)00304-5;

Barnett M.W., Seville R.A., Nijjar S., Old R.W., Jones E.A.;

"Xenopus Enhancer of Zeste (XEZ); an anteriorly restricted polycomb gene with a role in neural patterning.";

Mech. Dev. 102:157-167(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-JUN-2001, integrated into UniProt 01-JUN-2001, sequence version 1. 07-FBB-2006, entry version 20. Enhancer of zeste. Xenopus laevis (African clawed frog)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
Xenopodinae; Xenopus; Xenopus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Copyrighted by the UniProt Consortium, see http://www.uniprot.org/terms Distributed under the Creative Commons Attribution-NoDerivs License
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=8355;
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                                                                                                                      MVEDETVIHNI PYMGDEVILDQDGTFI EELI KNYDGKVHGDRECGFI INDEI FVELVNALGQ
                                                                                                                                                                                                                  KQRRIQPVHILTSVSSLRGTRECSVTSDLDFPTQVIPLKTLNAVASVPIMYSWSPLQQNF 120
                                                                                                                                                                                                                                                                                      MGQTGKKSEKGPVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILERTEILNQEW
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DKYMCSFLFNLANDFVVDATRKGNKIRFANHSVNPNCYAKVMYVNGDHRIGIFAKRAIQT
            | FHATPNTYKRKNTETALDNKPCGPQCYQHLEGAKEFAAALTAER|KTPPKRPGGRRRGRL
                                                                    BLKEKYKELTEQQLPGALPPECTPNIDGPNAKSVQREQSLHSFHTLFCRRCFKYDCFLHP
                                                                                                         YSDYEDDEDGDDUQDEQDDTAKDQDDNMEDKETQPLRKFPSDKIFEAISSMFPDKGTSB
                                                                                                                                                                 MVEDETVLHNI PYMGDEVLDQDGTFI EELI KNYDGKVHGDRECGFI NDEI FVELVNALAQ
                                                                                                                                                                                                                                                                          MGQTGKKSEKGPVCWRKRVKSBYMALRQLKKFRRADEVKSMFNTNRQKIMERTEILNQEW
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FHATPNTYKRKNNEAANDGKPCGPHCYQLLEGAREFAAALTAERIKTPPKRPSGRRRGRL
                                                   ELKEKYKELTEQQLPGALPPECTPNIDGPNAKSVQREQSLHSFHTLFCRPCFKYDCFLHP
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Pred. No. 1.4e-215;
6; Mismatches 24; Indels
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AMEDILINE-2238857; PubMed=12477932; DOI=10.1073/pnas.242603899;

AN Strausberg R.L., Peingold B.A., Grouse L.H., Derge J.G.,

AN Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,

AN Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,

AN Altschul S.F., Zeebberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

AN Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

AN Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

AN Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

AN Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

AN Brownstein M.J., Bonaldo M.F., Casavant T.L., Scheetz T.B.,

Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

AN Brownstein M.J., William R.J., Marmson R.D., Mullahy S.J.,

AN Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

AN RA S.S., WcEwan P.J., McKernan K.J., Malek J.A., Gunarattne P.H.,

AN Willalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,

Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,

AN Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

AN Hopkins R.W., Touchman J.W., Schmutz J., Myers R.M.,

AN Hopkins R.W., Touchman J.W., Schmutz J., Myers R.M.,

AN Hopkins R.M., Schein J.E., Jones S.J.M., Marra M.A.;
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05-JUL-2005,
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Xenopus laevis (African clawed frog).
Xenopus laevis (African clawed frog).
Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
Xenopodinae; Xenopus; Xenopus.
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Richardson P.,
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Klein S.L., Strausberg R.L., Wagner L., Pontius J., Clifto
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TISSUE=Embryo;
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GO; GO:0005634; C:nucleus; IRA.
GO; GO:0003677; F:DNA binding; IRA.
InterPro; IPR001005; Myb DNA bd.
InterPro; IPR001214; SET.
Pfam; PF00856; SET; 1.
SMART; SM00717; SANT; 2.
SMART; SM00717; SAT; 1.
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Hypothetical protein.
SEQUENCE 748 AA; 85742
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                                                                                                                                               PAPAEDVDTPPRKKKRHFLWAAHCRKIQLKKDGSSNHVYNYQPCDHPRQPCDSSCPCVI
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DKYMCSFLFNLNNDFVVDATRKGNKIRFANHSVNPNCYAKVMMVNGDHRIGIFAKRAIQT
                                           VSCKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNEFISEYCGEIISQDEADRRGKVY
                                                                                                        AQNFCEKFCQCSSECQNRFPGCRCKAQCNTKQCPCYLAVRECDPDLCLTCGAADHWDSKN
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1 (JUN-2005)
                           VSCKNCSIQRGSKKHILLAPSDVAGWGIYIKDPVQKNEFISEYCGEIISQDBADRRGKVY
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SMART; SM00717; SANT; 2.
SMART; SM00317; SET; 1.
PROSITE; PS50280; SET; 1.
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International consortium for macaque cDNA "DNA sequences of macaque genes expressed evolutionary implications.";
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PubMed=15944441; DOI=10.1093/molbev/msi187;

PubMed=15944441; DOI=10.1093/molbev/msi187;

Osada N., Hirata M., Tanuma R., Kusuda J., Hida M.

Sugano S., Gojobori T., Shen C.-K.J., Wu C.I., Has

"Substitution Rate and Structural Divergence of 5,

"Substitution Rate and Structural Divergence of 5,

Comparative Analysis Between Human and Cynomolgus

Mol. Biol. Evol. 22:1976-1982 (2005).
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Testis cDNA, clone: QtsA-15957, similar to human enhancer of zest homolog 2 (Drosophila) (EZH2), transcript variant 2.
Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Buarchontoglires; Primates; Catarrhini;
Cercopithecidae; Cercopithecinae; Macaca.
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07-FEB-2006,
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GO:0005634; C:nucleus; IEA.
GO:0003677; F:DNA binding; IEA.
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Attribution-NoDerivs License
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RESULT 13

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AC Q75MP9;

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DT 1-FEB-2006, o
DE Hypothetical
GN NamesEXP2;
OS Homo sapiens
OC Mammalia; Euth
OC Mammalia; Euth
OC MAMMALINE-22737;

RA Hiller L.W.,
RA Wagner-McPherr
RA Fewell G.A., I
RA Careky P., Bi
RA Careky P., Bi
RA Careky P., Bi
RA Careky P., Bi
RA Sun H., Edwark
RA Tin-Wollam A., I
RA Simms B., Levy
RA Bieri T.A., Mc
RA Gillett W., Zi
RA Simms B., Levy
RA Bailey J.A., I
RA Gillett W., Zi
RA Bailey J.A., H
RA Giddy S.R., McI
RX MEDLINE=227379999 FubMed=12853948; DOI=10.1038/nature01782;
RA Hillier L.W., Fulton R.S., Fulton L.A., Graves T.A., Pepin K.H.,
RA Hillier L.W., Fulton R.S., Fulton L.A., Graves T.A., Pepin K.H.,
RA Wagner-McPherson C., Layman D., Maas J., Jaeger S., Walker R.,
RA Wylie K., Sekhon M., Becker M.C., O'Laughlin M.D., Schaller M.E.,
RA Sun H., Edwards J., Bradshaw-Cordum H., Ali J., Andrews S., Isak A.,
RA Sun H., Edwards J., Bradshaw-Cordum H., Ali J., Andrews S., Isak A.,
RA Vanbrunt A., Nguyen C., Du F., Lamar B., Courtney L., Kalicki J.,
RA Vanbrunt A., Nguyen C., Du F., Lamar B., Courtney L., Kalicki J.,
RA Strong C.M., Hou S., Tomlinson C., Dauphin-Kohlberg S.,
RA Kozlowicz-Reilly A., Leonard S., Rohlfing T., Rock S.M.,
RA Kozlowicz-Reilly A., Leonard S., Rohlfing T., Rock S.M.,
RA Latreille P., Miller N., Johnson D., Marray J., Woessner J.P.,
RA Latreille P., Miller N., Johnson D., Marray J., Woessner J.P.,
RA Wendl M.C., Yang S.-P., Schultz B.R., Wallis J.W., Spieth J.,
RA Wendl M.C., Nelson J.O., Berkowicz N., Wohldmann P.E., Cook L.L.,
RA Hickenbotham M.T., Eldred J., Williams D., Bedell J.A., Mardis B.R.,
RA Gillett W., Zhou Y., James R., Phelps K., Iadanoto S., Bubb K.,
RA Gillett W., Zhou Y., James R., Phelps K., Iadanoto S., Bubb K.,
RA Bailey J.A., Portnoy M.E., Torrente D., Chimwalla A.T., Gish W.R.,
RA Bailey J.A., Portnoy M.E., Torrente D., Chimwalla A.T., Gish W.R.,
RA Waterston R.H., Wilson R.K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (Human)
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                      NUCLEOTIDE SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chordata; Craniata; Vertebrata; Euteleostomi; Euarchontoglires; Primates; Catarrhini; Hominidae;
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Best Local
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InterPro; IPR001214; SET.
Pfam; PF00856; SET; 1.
SMART; SM00717; SANT; 2.
SMART; SM00317; SET; 1.
PROSITE; PS50280; SET; 1.
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Submitted
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                                                  KAQCNTKQCPCYLAVRECDPDLCLTCGAADHWDSKNVSCKNCSIQRGSKKHLLLAPSDVA
                                                                                                                       CRKIQLKKDGSSNHVYNYQECDHPRQECDSSCECVIAQNECEKFCQCSSECQNREFGCRC
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(DEC-1999)
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Pred. No. 4.7e-206;
0; Mismatches 0;
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RA Hiller L.W., Pulton R.S., Fulton L.A., Graves T.A., Pepin K.H.,
RA Hiller M., Sekhon M., Becker M.C., O'Laughlin M.D., Schaller M.E.,
RA Wagner-McPherson C., Layman D., Mass J., Jaeger S., Walker R.,
RA Wylie K., Sekhon M., Becker M.C., O'Laughlin M.D., Schaller M.E.,
RA Wylie K., Sekhon M., Becker M.C., O'Laughlin M.D., Schaller M.E.,
RA Fewell G.A., Del-haunty K.D., Miner T.L., Nash W.E., Cordes M., Du H.,
RA Sun H., Edwards J., Bradshaw-Cordun H., Ali J., Andrews S., Isak A.,
RA Carseky P., Bielicki L., Scott K., Holmes A., Harkins R., Harris A.,
RA Colowicz-Reilly A., Leonard S., Rohlfing T., Rock S.M.,
RA Kozlowicz-Reilly A., Leonard S., Rohlfing T., Rock S.M.,
RA Tin-Wollam A.-M., Abbott A., Minx P., Maupin R., Strowmatt C.,
RA Tin-Wollam A.-M., Abbott A., Minx P., Maupin R., Strowmatt C.,
RA Latreille P., Miller N., Johnson D., Murray J., Woessner J.D.,
RA Hickenbotham M.C., Yang S.-P., Schultz B.R., Wallis J.W., Spieth J.,
RA Bieri T.A., Nelson J.O., Berkowicz N., Wohldmann P.E., Cook L.L.,
RA Hickenbotham M.T., Blared J., Williams D., Bedell J.A., Mardis B.R.,
RA Gillett W., Zhou Y., James R., Phelps K., Iadanoto S., Bubb K.,
RA Gillett W., Zhou Y., James R., Phelps K., Iadanoto S., Bubb K.,
RA Baertsch R.A., Brent M.R., Keibher E., Flicek P., Boxk P., Suyama M.,
Baddy S.R., McPherson J.D., Olson M.V., Bichler B.E., Green B.D.,
RA Waterston R.H., Wilson R.K.;
T'he DNA sequence of human chromosome 7.";
RT "The DNA sequence of human chromosome 7.";
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Ensembl; ENSG000
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                                                                                                                                                                                                                                                                         Bauer C., Holmes A., Mead K.; "The sequence of Homo sapiens PAC clone RP5-1151M5."; Submitted (JAN-1999) to the EMBL/GenBank/DDBJ databases.
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Q75MQ0;
                                                                                                                                                                                                                                         NUCLEOTIDE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (Human)
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                    006323; AAS02036.1; -; ENSG00000106462; Homo
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                                                                                                                             (JAN-2004)
                                                                                                                                                                                                   (DEC-1999)
                                                                                                                                                                                                                                                                                                                           SEQUENCE.
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entry version 10.
protein EZH2 (Fragmo
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     C:nucleus;
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                                                                                            UniProt
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                                                                         iProt Consortium, see http://www.uniprot.org/terms
Creative Commons Attribution-NoDerivs License
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                                                                                                                             EMBL/GenBank/DDBJ
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                  Genomic_DNA.
sapiens.
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RESULT 15
Q90WP4 TETING
ID Q90WP4 TETING
AC Q90WP4;
DT 01-DEC-2001, i
DT 01-DEC-2001, i
DT 07-PEB-2006, e
DE EZH2 homolog.
GN Name=ezh2;
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Best Local S
Matches 663
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InterPro; IPRO01214; SET.
Pfam; PF00856; SET; 1.
SMART; SM00317; SENT; 2.
SMART; SM00317; SET; 1.
PROSITE; PS50280; SET; 1.
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NON TER 1
SEQUENCE 669 AA; 7
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                                                                                                                                                                                                                                                                                                                                                                       PSDVAGWGIFIKDPVQKNEFISEYCGEIISQDEADRRGKVYDKYMCSFLFNLNNDFVVDA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LWAAHCRKIQLKKDGSSNHVYNYQPCDHPRQPCDSSCPCVIAQNFCEKFCQCSSECQNRF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NIDGPNAKSVQREQSLHSFHTLFCRRCFKYDCFLHRKCNYSFHATPNTYKRKNTETALDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LEDHRODKESRPPRKFPSDKIFEAISSMFPDKGTAEELKEKYKELTEQQLPGALPPECTP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTF1 EEL1 KNYDGKVHGDRECGF1NDE1 FVEL VNALGQYNDDDDDDDDDDDDDDDDDDEEREEKQKD
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                                   sequence version entry version 20.
                                                                         integrated into UniProtKB/TrEMBL.
                                                                                                             PRELIMINARY;
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Pred. No. 7.6
                                                                                                             PRT;
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317

180 262 120 202 60

377 240

300

660 737 677 540 617 480 557 420 497

600

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Query Match
Best Local
Matches 63
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InterPro; IPR001214; SET.
Pfam; PP00856; SET; 1.
SMART; SM00717; SANT; 2.
SMART; SM00317; SET; 1.
PROSITB; PS50280; SET; 1.
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Tetraodon nigroviridis (Green puffer).

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Actinopterygii; Neopterygii; Teleostei; Buteleostei; Neoteleostei;

Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;

Tetradontoidea; Tetraodontidae; Tetraodon.

NCBI_TaxID=99883;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Copyrighted by the UniProt Consortium, Distributed under the Creative Commons
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Match
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GO:0005634; C:nucleus; IEA.
GO:0003677; F:DNA binding; IEA.
479
                              466
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Q8X225; 1M
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632; Conserv
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                                                              SSSEANSRCQTFIKMKPNIEPPENVEWSGAEASMERVLIGTYYDNPCAIARLIGTKTCRQ
                                                                                                                                  VYEFRVKESSI IAPAPAEDVDTPPRKKKRKHRLWAAHCRKIQLKKDGSSNHVYNYQPCDH
                                                                                                                                                                                                    CFKYDCFLHPFHATPNTYKRKNLENLVDSKPCGLDCYMYLVQDGMASEYAAG--AERTKT
                                                                                                                                                                                                                           CFKYDCFLHPFHATPNTYKRKNTETALDNKPCGPQCYQHL--EG-AKEFAAALTAERIKT
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 VYBFRVKESSIIARAPAEDEDTPPRKKKRKHRLWATHCRKIQLKKDGSSNHVYNYQPCDH
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ilarity 83.2%;
Conservative 53
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F
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86834
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   k; Score 3394.5;
k; Pred. No. 5e-1
53; Mismatches
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Attribution-NoDerivs License
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Search completed: August Job time: 207.794 secs 11, 2006, 22:28:02

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1: /EMC_Celerra_SIDS3/ptodata/2/iaa/5_COMB.pep:*

2: /EMC_Celerra_SIDS3/ptodata/2/iaa/6_COMB.pep:*

3: /EMC_Celerra_SIDS3/ptodata/2/iaa/7_COMB.pep:*

4: /EMC_Celerra_SIDS3/ptodata/2/iaa/H_COMB.pep:*

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6: /EMC_Celerra_SIDS3/ptodata/2/iaa/RE_COMB.pep:*

7: /EMC_Celerra_SIDS3/ptodata/2/iaa/backfiles1.pep:*
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US-09-589-892B-2
US-09-589-892B-12
US-09-589-892B-11
US-09-699-266A-13
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US-09-699-266A-12
US-09-699-266A-12
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US-09-248-796A-15128
US-09-248-796A-15128
US-09-248-796A-15128
US-09-248-796A-15128
US-09-989-892B-4
US-09-589-892B-4
US-09-599-892B-4
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Sequence 3162, Ap
Sequence 11, Appl
Sequence 13, Appl
Sequence 9, Appli
Sequence 9, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 14, Appli
Sequence 15, Appli
Sequence 11, Appli
Sequence 19, Appli
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                                2, Appli
15128, A
11018, A
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1262, Ap
18931, A
1909, Ap
             App1:
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175.5	182	187	194	205	205	224.5	226	228	228.5	230.5	237.5	237.5	237.5	237.5	244	246.5	248	249.5
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Sequence 18,	Sequence 17	Sequence 15	Sequence 40	Sequence 47	Sequence 31	Sequence 33,	Sequence 31	Sequence 15,	Sequence 13	Sequence 425,	Sequence 4,	Sequence 4,	Sequence 4,	Sequence 4,	Sequence 16	Sequence 30	Sequence 14	peduence Tr
3, Appl	7, Appl	15106, A	40, Appl	47093, A	31876, A	, Appl	L, Appl	5, Appl	3, Appl	25, App	, Appli	, Appli	Appli	Appli	6, Appl	•	4, Appl	•

ALIGNMENTS

US-09-589-892B-2 US-09-589-892B-2 RESULT 1 NUMBER OF SEQ ID NOS: 21 SOFTWARE: PatentIn versi SEQ ID NO 2 LENGTH: 746 Sequence 2, Application US/09589892B Patent No. 6689583 CURRENT APPLICATION NUMBER: US/09/589,892B CURRENT FILING DATE: 2000-06-09 PRIOR RIPELICATION NUMBER: US 08/945,988 PRIOR FILING DATE: 1997-11-10 PRIOR APPLICATION NUMBER: PCT/EP96/01818 PRIOR FILING DATE: 1996-05-02 PRIOR FILING DATE: 1996-05-02 PRIOR FILING DATE: 1995-05-10 PRIOR FILING DATE: 1995-05-10 GENERAL INFORMATION: APPLICANT: Jenuwein, Thomas APPLICANT: Lable, Gotz APPLICANT: O'Carroll, Donal APPLICANT: Bisenhaber, Frank APPLICANT: Rea, Stephen TITLE OF INVENTION: Chromatin-Regulator Genes FILE REFERENCE: 0652.1670001 TYPE: PRT ORGANISM: Homo sapiens version 3.2 Score 4051; Pred. Nó. 0; 0; Mismatches

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121 MVEDETVLHNIPYMGDEVLDQDGTFIEELIKNYDGKVHGDRECGFINDEIFVELVNALGQ 180

MVEDETVLANI PYMGDEVLDQDGTFI EEL IKNYDGKVHGDRECGFI NDE I FVELVNALGQ

KQRRIQPVHILTSVSSLRGTRECSVTSDLDFPTQVIPLKTLNAVASVPIMYSWSPLQQNF 120

KORRIOPVHILTSVSSLRGTRECSVTSDLDFFTQVIPLKTLNAVASVFIMYSWSFLQQNF

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61 13 Query Match 100.
Best Local Similarity 100.
Matches 746; Conservative

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YNDDDDDDDGDDPEEREEKQKDLEDHRDDKESRPPRKFPSDKIFEAISSMFPDKGTAEEL

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APPLICANT: HELIX RESEARCH INSTITUTE
TITLE OF INVENTION: No. 6943241el full length cDN
FILE REFERENCE: H1-A0105
CUCRENT APPLICATION NUMBER: US/10/104,047
CURRENT FILING DATE: 2002-03-25
PRIOR APPLICATION NUMBER:
PRIOR FILING DATE:
1000 3162
LENGTH: 707
TYPE: PRT
TYPE: PRT
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US-10-104-047-3162
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; Patent No. 6943241
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                                                                                                                                        CURRENT FILING DATE: 2000-06-09
FRIOR APPLICATION NUMBER: US 08/945,988
FRIOR FILING DATE: 1997-11-10
PRIOR APPLICATION NUMBER: PCT/EP96/01818
PRIOR FILING DATE: 1996-05-02
PRIOR APPLICATION NUMBER: DE 195 16 776.7
PRIOR FILING DATE: 1995-05-10
NUMBER OF SEQ ID NOS: 21
SOPTWARE: Patentin version 3.2
SEQ ID NO 11
LENGTH: 760
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                                                                                              ; TYPE: PRT ; ORGANISM: Drosophila melanogaster US-09-589-892B-11
                                                                                                                                                                                                                                                                                                                                                                                   ; GENERAL INFORMATION:

APPLICANT: Jenuwein, T

; APPLICANT: Laible, Gc

; APPLICANT: O'Carroll,

; APPLICANT: Eisenhabe;
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US-09-589-892B-11
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                                                                                                                                                                                                                                                                                        APPLICANT: Rea, Stephen
APPLICANT: Rea, Stephen
TIPLE OF INVENTION: Chromatin-Regulator Genes
FILE REFERENCE: 0652.1670001
CURRENT APPLICATION NUMBER: US/09/589,892B
CURRENT APPLICATION NUMBER: 066-09
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Eisenhaber, Frank
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                               52.6%; Score 2131.5; DB 2;
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tive 87; Mismatches 171;
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RESULT 4
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; Sequence 13, Application
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; GENERAL INFORMATION:
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APPLICANT: Ma, Hongchang
APPLICANT: Morakinyo, Layo O.
APPLICANT: Odell, Joan T.
APPLICANT: Odell, Joan T.
APPLICANT: Orozsco Jr., Emil M.
APPLICANT: Orozsco Jr., Emil M.
APPLICANT: Rafalski, J. Antoni
TITLE OF INVENTION: TRANSCRIPTION AND GENE EX
FILE REFERENCE: BB1164 US NA
CURRENT APPLICATION NUMBER: US/09/699,266A
CURRENT FILING DATE: 2000-10-27
PRIOR APPLICATION NUMBER: PCT/US99/08385
PRIOR PILING DATE: 1999-04-16
PRIOR APPLICATION NUMBER: 60/083,212
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NUMBER OF SEQ ID NOS: 13
SOPTWARE: Microsoft Office 97
SEQ ID NO 13
LENGTH: 856
TYPE: PRT
ORGANISM: Arabidopsis thaliana
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                                                                                                                              NVSCKNCSI----QRG-------SKKHLLLAPSDVAGWGIFIKDPVQKNEFISEY
                                                                                                                                                                NETCCEKYCGCSKSCKNRFRGCHCAKSOCRSRQCPCFAAGRECDPDVCRNC-----W---
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28.8%; Pred. No. 2.8c
tive 113; Mismatches
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                                                                YDRANSSFLFDLINDQYVLDAQRKGDKLKFANHSAKPNCYAKVMF
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; TYPE: PRT
; ORGANISM: Arabidopsis thaliana
US-09-699-266A-12
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US-09-699-266A-12
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APPLICANT: Rafalski, J. Antoni
TITLE OF INVENTION: TRANSCRIPTION AND GENE EX
FILE REFERENCE: BB1164 US NA
CURRENT APPLICATION NUMBER: US/09/699,266A
CURRENT FILING DATE: 2000-10-27
PRIOR APPLICATION NUMBER: PCT/US99/08385
PRIOR PILING DATE: 1999-04-16
PRIOR PILING DATE: 1999-04-16
PRIOR PILING DATE: 1998-04-27
PRIOR PILING DATE: 1998-04-27
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GENERAL INFORMATION:
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SEQ ID NO 12
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Best Local Similarity
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APPLICANT: Morakinyo, Layo O.
APPLICANT: Odell, Joan T.
APPLICANT: Orozeco Jr., Emil
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NVLES-----KDTDSD-----REAGTETGGENN-----
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                                                                                                           SDSDSIASGSCSPSDAKHKDNEDATSSSQKHVKSGNSGKSRKNGTPAEVSNNSVKDDVPV
                                                                                                                                                                           CALETSDSENGLQQDTNSDKVSSSPKVKGSGRRVGRKRNKNRVABRVPRKTQKRQKKTBA
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                                                                                                                                                                                                                                                                      QCYQHLEGAKEFAAALTAB------RIKTPPKRPGGRRRGRLPNN--SSRPSTPTI 370
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                                                CQSNEVASELDAPGSDESLRKEEFMGETVSRGRLATNKLWRPLEKSLFDKGVEIFGMNSC
                                                                                                                                                                                                                                                                                                       EGALDS FUNLF CRRCLYFDCRLHGCSQDLIFPAEKPAPWCP------PVDENLTCGA
                                                                                                                                                                                                                                                                                                                                     EQSLHSFHTLFCRRCFKYDCFLH------PFHATPNTYKRKWTETALDNKPCGP 322
                                                                                                                                                                                                                                                                                                                                                                                                                                  -RIYYDQTGGEALICSDSEBEAIDDEEEK-----RDFLE---PEDYIIRMTLEQL
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                                                                               -----IEPPENVE-----
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                                                                                                                                             ----DKEEEKKDETSSS-----SEANSRCQTPIKMKPN-----
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                  -MSDAVLQTLARHM--ERAADDIKARYEILHGEKTKDSCKKGTEHNVKVEDLYCDKDLDA
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CURRENT APPLICATION NUMBER: US/09/699,266A
CURRENT FILING DATE: 2000-10-27
PRIOR APPLICATION NUMBER: PCT/US99/08385
PRIOR FILING DATE: 1999-04-16
PRIOR APPLICATION NUMBER: 60/083,212
PRIOR APPLICATION NUMBER: 60/083,212
PRIOR FILING DATE: 1998-04-27
NUMBER OF SEQ ID NOS: 13
SOPTWARE: MICCOSOFT OFFICE 97
SEQ ID NO 9
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US-09-699-266A-9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 19.3%;
Best Local Similarity 27.0%;
Matches 251; Conservative 11
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APPLICANT: Rafalski, J. Antoni
TITLE OF INVENTION: TRANSCRIFTION AND GENE
FILE REFERENCE: BB1164 US NA
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APPLICANT: Morakinyo, Layo O.
APPLICANT: Odell, Joan T.
APPLICANT: Orozeco Jr., Emil
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TYPE: PRT
ORGANISM: Zea mays
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                                                                                    RECGFINDEIFVELVNALGQYNDDDDDDDDDDDDEEREEKQKDLEDH---RDDKESRPPRK 217
                                                                                                                                                                                                               NAVASVPIMYSWSPLQQN-FMVBDETVLHNIPYMGDEVLDQDGTFIBBLIKNYDGKVHGD 160
                                                                                                                                                                                                                                                                               NLITKRODDALCTLHS-LDIIPVDKDGGTFQDESPFSSSNVMFGGNLGPKNAIIRPIK-L 155
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                                                                                                                                                                                                                                                                                                                                                                                              KKRITAD--RLTYIK--NRIGENKTNISSYTQ----RTYNLS---KNRQISTSKGTDSAS
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FPSDKIFEAISSMFPDKGTAEELKEKYKELTEQQLPGALPP-----ECTPNIDG 266
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                                                          -----CSDSEDEALEDEEEKKEFKHSEDHILRMTVQECG----
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GENERAL INFORMATION:

APPLICANT: Fischer, Robert L.

APPLICANT: Chad, Nir

APPLICANT: Kiyosue, Tomohiro

APPLICANT: Yadegari, Ramin

APPLICANT: Wargossian, Linda

APPLICANT: Harada, John

APPLICANT: Harada, John

APPLICANT: Goldberg, Robert B.

TITLE OF INVENTION: Nucleic Acids That Control Seed and Fru

TITLE OF INVENTION: Development in Plants

FILE REFERENCE: 023070-086120US

CURRENT APPLICATION NUMBER: US/09/177,249

CURRENT APPLICATION NUMBER: US/09/071,838

EARLIER APPLICATION NUMBER: US/09/071,838

EARLIER APPLICATION NUMBER: US/09/071,838

EARLIER FILING DATE: 1998-05-01

NUMBER OF SEQ ID NOS: 324

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 2
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TYPE: PRT
ORGANISM: Arabidopsis sp
-09-177-249-2
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FILE REFERENCE: mea génes
CURRENT APPLICATION NUMBER: US/09/061,769A
CURRENT FILING DATE: 1998-04-16
PRIOR APPLICATION NUMBER: 09/061,769
PRIOR FILING DATE: 1998-04-16
NUMBER OF SEQ ID NOS: 21
SOPTWARE: Patentin Ver: 2.0
SEQ ID NO 2
SEQ ID NO 2
LENGTH: 689
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
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US-09-061-769A-2
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GENERAL INFORMATION:
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Best Local Similarity
Matches 184; Conserv
                                                                                                                                                                               APPLICANT: Cold spring Harbor Labs
TITLE OF INVENTION: No. 6239327el
TITLE OF INVENTION: use for Same
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Pred. No. 1.8e-54;
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GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Fischer, Robert L.
APPLICANT: Ohad, Nir
APPLICANT: Ohad, Nir
APPLICANT: Yadegari, Ramin
APPLICANT: Yadegari, Ramin
APPLICANT: Margossian, Linda
APPLICANT: Margossian, Linda
APPLICANT: Goldberg, Robert B.
APPLICANT: Goldberg, Robert B.
TITLE OF INVENTION: Nucleic Acids That Control Seed and Fru
TITLE OF INVENTION: Development in Plants
FILE REFERENCE: 023070-086120US
CURRENT APPLICATION NUMBER: US/09/812,283
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Matches 184
                                                                                                                                                                                              sequence 2, Application US/09812283 Patent No. 6828477
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3%; Pred. No. 1.8e-54;
104; Mismatches 205;
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PRIOR APPLICATION NUMBER: 09/177,249
PRIOR FILING DATE: 1998-10-22
PRIOR APPLICATION NUMBER: US 09/071,838
PRIOR FILING DATE: 1998-05-01
NUMBER OF SEQ ID NOS: 324
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 2
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; TYPE: PRT
; ORGANISM: Arabidopsis
US-09-812-283-2
                                                                                RESULT 10
US-10-176-884-14
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      GENERAL INFORMATION:
APPLICANT: Fischer, Ro
APPLICANT: Kinoshita,
                                                  Sequence 14, Application Patent No. 6906244
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Pred. No. 1.8e-54;
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FILE REFERENCE: 023070-116710US
CURRENT APPLICATION NUMBER: US/10/176,884
CURRENT FILING DATE: 2002-06-21
PRIOR APPLICATION NUMBER: US 60/300,506
PRIOR FILING DATE: 2001-06-22
NUMBER OF SEQ ID NOS: 91
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 14
LENGTH: 689
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APPLICANT:
APPLICANT:
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TITLE OF INVENTION: Compositions and Methods for Modulating
TITLE OF INVENTION: Development
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                                    ELFFDYRYSOADA 733
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Okamuro, Jack
Dang, Van-Dinh
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                                                                                                              CKNMQFLLQTNKKILIGKSDVHGWGAFTWDSLKKNEYLGEYTGELITHDEANERGRIEDR
                                                                                                                                                 CKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNEFISEYCGEIISQDEADRRGKVYDK 660
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; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID
US-09-071-838A-2
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GENERAL INFORMATION:
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: (415) 576-0300 INFORMATION FOR SEQ ID NO: 2: SEQUENCE CHARACTERISTICS:
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FILING DATE: 01-May-1998
CLASSIFICATION: CUNKNOWN>
ATTORNEY/AGENT INFORMATION:
NAME: Bastian, Kevin L.
REGISTRATION NUMBER: 34,774
REFERENCE/DOCKET NUMBER: 023070-08610
TELECOMMUNICATION INFORMATION:
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MEDIUM TYPE: Floppy disk
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ADDRESSEE: Townsend and
STREET: Two Embarcadero
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Ohad, Nir
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313
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                                    328 LEGAKEFAAALTAERIKTPPKRPGGRRRGRLPNNSSRPSTPTINVLESKDTDSDREAGTE
                                                                                                                                                                                                                                                                                                        114 FLDEDVPLLPSVKLPIVEKLPRSITWVFTKSSQLMAESD-SVIGKRQIYYLNGE-----
                                                                                                                                                                                                                                                                                                                                                                                      184;
VRSVTB---
                                                                          KTITTAFQDFADRRHCRRCMIFDCHMHEKY-EPESRSSEDKSSLFEDEDRQPCSEHCYLK
                                                                                                                HSFHTLF-----CRRCFKYDCFLHPFHATPNTYKRKNTETAL---DNKPCGPOCYQH
                                                                                                                                                    GLDDLVVRRALAKYLEVDVSDILERYNBLKLKN------DGTAGEA--SDLTS
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STATE: California
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GOIDBERG, Nucleic Acids That Control Seed
OF INVENTION: Nucleic Acids That Control Seed
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Yadegari, Ramin
Margossian, Linda
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                                                                                                                                                                                                                                                                                                                                                                                  3%; Score 726; DB 3; Length 689;
1%; Pred. No. 1.8e-54;
104; Mismatches 205; Indels 180;
                                                                                                                                                                                      -TAEELKEKYKELTEQQLPGALPPECTPNIDGPNAKSVQREQSL 278
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Center, Eighth Floor
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TITLE OF INVENTION: Compositions and Methods for ITITLE OF INVENTION: Development FILE REFERENCE: 023070-116710US
CURRENT APPLICATION NUMBER: US/10/176,884
CURRENT FILING DATE: 2002-06-21
PRIOR APPLICATION NUMBER: US 60/300,506
PRIOR PILING DATE: 2001-06-22
NUMBER OF SEO ID NOS: 91
SOPTWARE: PATENTIN Ver. 2.1
SEQ ID NO 15
LENGTH: 932
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US-10-176-884-15
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                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Fischer,
APPLICANT: Kinoshi
APPLICANT: Yadegar
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                                                                                                                                                                                          ORGANISM: Artificial Sequence FEATURE: FEATURE: OTHER INFORMATION: Description of Artificial Sequence:MEA-15G-ESA1 OTHER INFORMATION: chimeric polypeptide encoded by transgene plasmid OTHER INFORMATION: pCR8304-SUAS MEA-15G-ESA1 FEATURE:
                                                                                                                                             NAME/KEY: MOD_RES
LOCATION: (906)
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                              TYPE: PRT
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 FLDEDVPLLPSVKLPIVEKLPRSITWVFTKSSQLMABSD-SVIGKRQIYYLNGE----- 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Kinoshita, Tetsu
Yadegari, Ramin
Gehring, Mary
Okamuro, Jack
Dang, Van-Dinh
The Regents of the University of California
Ceres, Inc.
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                          FMVEDETVLHNIPYMGDEVLDQDGTFI----EELIKNYDGKVHGDRECGFINDEIFVELV 175
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                                                              Conservative 104;
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                                                            17.9%; Score 726; DB 2; Length 932;
27.3%; Pred. No. 2.8e-54;
tive 104; Mismatches 205; Indels 1
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                                                              Indels 180;
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CURRENT APPLICATION NUMBER: US/09/699,266A
CURRENT FILING DATE: 2000-10-27
PRIOR APPLICATION NUMBER: PC/US99/08385
PRIOR FILING DATE: 1999-04-16
PRIOR APPLICATION NUMBER: 60/083,212
PRIOR APPLICATION NUMBER: 60/083,212
PRIOR FILING DATE: 1998-04-27
NUMBER OF SEQ ID NOS: 13
SOFTWARE: Microsoft Office 97
SEQ ID NO 11
                                 ; LENGTH: 359
; TYPE: PRT
; ORGANISM: Triticum
US-09-699-266A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 13
US-09-699-266A-11
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Patent No. 6559354
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                                                                                                                                                                                                                                                                                                            APPLICANT:
APPLICANT:
Query Match
                                                                                                                                                                                                                                                                                                                                              APPLICANT: Ma, Hongchang
APPLICANT: Morakinyo, Lay
APPLICANT: Odell, Joan T.
                                                                                                                                                                                                                                                                        APPLICANT: OYOZGO Jr., Emil M.
APPLICANT: Rafalski, J. Antoni
TITLE OF INVENTION: TRANSCRIPTION AND GENE EXPRESSION REGULATORS
FILE REFERENCE: BB1164 US NA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VRSVTE-----ADHV-------MDNDNS-----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KTITTAFQDFADRRHCRRCMIFDCHMHEKY-EPESRSSEDKSSLFEDEDRQPCSEHCYLK 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      G------PAEELKEKYKELTEQQLPGALPPECTPNIDGPNAKSVQREQSL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CKNMQFLLQTNKKILIGKSDVHGWGAFTWDSLKKNEYLGEYTGELITHDEANERGRIEDR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGCSKDCNNRFGGCNCAIGQCTNRQCPCFAANRECDPDLCRSCPLSCGDGTLGBTPVQIQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TPPRKKKRKHRLWAAHCRKIQLKKDGSSNHVYNYQPCDHPRQPCDSSCPCVIAQNFCEKF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GRNSCDVALNI LRGLKTCLEI YNYMREQDQCTMSLDLNKTTQRHNQVTKKVSRKSSRSV-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGENNDKEEEEKKDETSSSSEANSRCQTPIKMKPNIEPPENVEWSGAEASMFRVLIGTY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HSFHTLF-----CRRCFKYDCFLHPFHATPNTYKRKNTETAL---DNKPCGPQCYQH 327
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ----RKKSRLRKYARYPPALKKTTSGBAKFYKHYTPCT-CKSKCGQQCPCLTHENCCEKY
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14.2%;
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 Score 576.5;
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432 WSGAEASMFRVLIGTYYDNFCAIAR--LIGTKTCRQV--YEFRVKESSIIAPAPAEDVDT

Best Local Similarity 38.3 Matches 128; Conservative

38.3%; 44;

Pred. No. 7.9e 4; Mismatches

7.9e-42;

129;

Indels

33;

Gaps

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GENERAL INFORMATION:

APPLICANT: HUANG, Shi
TITLE OF INVENTION: PR/SET- Domain Containing Nu:
TITLE OF INVENTION: Polypeptides, Antibodies and
FILE REFERENCE: P-LJ 5301
CURRENT APPLICATION NUMBER: US/10/200,012
CURRENT FILING DATE: 2002-07-18
PRIOR APPLICATION NUMBER: US 09/910,478
PRIOR FILING DATE: 2001-07-18
UNMBER OF SEQ ID NOS: 46
SOPTWARE: PASESEQ for Windows Version 4.0
SEQ ID NO 39
LENGTH: 114
RESULT 15
US-10-176-884-19
; Sequence 19, Application US/10176884
; Patent No. 6906244
; GENERAL INFORMATION:
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US-10-200-012-39
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                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                 ORGANISM: Human
FEATURE:
NAME/KEY: VARIANT
LOCATION: 31, 32, 33, 34, 35, 36, 37, 38,
LOCATION: 46, 47, 48, 49, 50, 51
COTHER INFORMATION: synthetic peptide
OTHER INFORMATION: Xaa = Any Amino Acid
                                                                                                                                                681
                                                                                                                                                                                                       621 VAGWGIFIKDPVQKNEFISEYCGBIISQDEADRRGKVYDKYMCSFLFNLANNDFVVDATRK 680
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                                                                                                                                                                                                                                                         93;
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Similarity 81.6%;
                                                                                                                    MMVNGDHRIGIFAKRAIQTGEELFFDYRYSQADA 733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EQNYMEQGMVVRTKVCRRRGRTRKHKYPSKAAGHPAIRKKVGDGKQCDRQYTPCG-CQEM 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WSTLERDLYLKGIEIFGKNSCLIVRNLLCGLKTCMEVASYMYNNGAANMSKSISGDFTET
                                                                                                                                                                                      WGELWSGSPRRATKKEVMVTQCGNMKLLLKQQQRILLGKSDVAGWGAFIKNPVHKNDYLG 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CNKNCPCVENGTCCEKYCGCSKSCKNRFRGCHCAKISAEAGNAHVLLPSGNVIRMFCRNC 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDSSCPCVIAQNECEKECQCSSECQNREPGCRC-KAQCNTKQCPCYLAVRECDPDLCLTC 588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PP-----RKKKRKHRLWAAHCRKIQLKKDGSSNHVYNYQPCDHPRQP 529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EYTGEL I SHKEADKRGKI YDRANSSFLFDLNDQFVLDAYRKGDKLKFANHSSSPNCYAKV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -----GAADHWDSKNV---SCKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNEFIS 639
                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                         ..
                                                                                                                                                                                                                                                                         Score 474; DB 2; Length 114; Pred. No. 1.4e-33;
                                                                                                                                                                                                                                                         Mismatches
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and Methods of Use
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Search completed: August 11, Job time: 42.1709 secs
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                                                                                                                                                                                                                                                                                                                                              SEQ ID NO 19
LENGTH: 115
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                     Matches 65;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILE REFERENCE: 023070-116710US
CURRENT APPLICATION NUMBER: US/10/176,884
CURRENT FILING DATE: 2002-06-21
PRIOR APPLICATION NUMBER: US 60/300,506
PRIOR FILING DATE: 2001-06-22
NUMBER OF SEQ ID NOS: 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Dang, Van-Dinh
APPLICANT: The Regents of the University of California
APPLICANT: Ceres, Inc.
TITLE OF INVENTION: Compositions and Methods for Modulating Plant
TITLE OF INVENTION: Development
                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: PatentIn Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                             OTHER INFORMATION:
OTHER INFORMATION:
                                                                                                         679
                                                                                                                                                                                  619
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   : Fischer, Robert
: Kinoshita, Tetsu
: Yadegari, Ramin
: Gehring, Mary
: Okamuro, Jack
                                                                                          RKGNKIRPANHSVNPNCYAKVMMVNGDHRIGIFAKRAIQTGBELPFDYRYSQADA 733
                                                                        RKGNEFKFLNHSARPNCYAKLMIVRGDQRIGLFABRAIEEGEBLFFDYCYGFEHA 115
                                                                                                                                              SDVHGWGAFTWDSLKKNEYLGEYTGELITHDEANERGRIEDRIGSSYLFTLNDQLEIDAR
                                                                                                                                                                                SDVAGWGIFIKDPVQKNEFISEYCGEIISQDEADRRGKVYDKYMCSFLFNLNNDFVVDAT 678
                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                             Description of Artificial Sequence:exemplary domain
                                                                                                                                                                                                                                      9.0%; Score 365; DB 2; 56.5%; Pred. No. 4.5e-24;
                 2006,
                                                                                                                                                                                                                     20; Mismatches
                   22:30:20
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protein -92

protein search, using sw

model

Copyright

281076, 315015, 15015, Appli 2, Appli 2, Appli 14, Appl 14, Appl 15, Appli 15, Appl
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    August 11, 2006, 22:45:12; Search time 127.001 Seconds (without alignments) 2720.917 Million cell update:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Published Applications AA Main:*

1: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US07_PUBCOMB.pep:*

2: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

3: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US10A_PUBCOMB.pep:*

4: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

5: /EMC_Celerra_SIDS3/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2097797 seqs, 463214858 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MGQTGKKSEKGPVCWRKRVK.....RYSQADALKYVGIEREMEIP
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US-10-773-302-2
US-10-153-668-232
US-10-231-778-225
US-10-295-027-710
US-10-231-778-226
US-10-104-047-3162
US-11-072-512-3162
US-11-072-512-3162
US-11-097-143-14073
US-10-231-778-224
US-10-231-778-224
US-10-424-599-219717
US-10-424-599-174013
US-10-425-114-7283
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US-10-426-514-7283
US-10-427-930-155-9
US-10-427-930-155-9
US-10-427-931-155-93
US-10-427-933-105693
US-10-437-963-1146048
US-10-231-778-222
US-10-231-778-222
US-10-231-778-222
US-10-437-963-126048
US-10-437-963-126048
US-10-231-778-222
US-10-231-778-222
US-10-231-778-222
US-10-231-778-222
US-11-230-145-2
Sequence 2, Appli
Sequence 232, App
Sequence 225, App
Sequence 216, App
Sequence 3162, Ap
Sequence 3162, Ap
Sequence 3142, Ap
Sequence 56, Appl
Sequence 14073, A
Sequence 11771, Appl
Sequence 219717,
Sequence 7656, Ap
Sequence 717013,
Sequence 7283, A
Sequence 4, Appli
Sequence 4, Appli
Sequence 599, App
Sequence 7340, Ap
Sequence 105693,
Sequence 105693,
Sequence 222, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Description
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                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2. Application US/10773302

| Sequence 2. Application VS/10773302
| Publication No. US20050089880A1
| GENERAL INFORMATION:
| APPLICANT: Láible, Gotz
| APPLICANT: Láible, Gotz
| APPLICANT: Láible, Gotz
| APPLICANT: Rea, Tephen
| APPLICANT: Rea, Stephen
| TITLE OF INVENTION: Chromatin-Regulator Genes
| FILE REFERENCE: 0652.1670001
| CURRENT APPLICATION NUMBER: US/10/773,302
| CURRENT FILING DATE: 2004-02-09
| PRIOR APPLICATION NUMBER: US/99/589,892
| PRIOR APPLICATION NUMBER: US/99/589,892
| PRIOR FILING DATE: 1997-11-10
| PRIOR APPLICATION NUMBER: US 08/945,988
| PRIOR FILING DATE: 1997-11-10
| PRIOR APPLICATION NUMBER: DE 195/01818
| PRIOR APPLICATION NUMBER: DE 195/01818
| PRIOR APPLICATION NUMBER: DE 195 16 776.7
| PRIOR FILING DATE: 1995-05-10
| NUMBER OF SEQ ID NOS: 21
| SOFTWARE: Patentin version 3.2
| SEQ ID NO 2
| TVDE: DET
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Best Local S
Matches 746
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ORGANISM: Homo
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719.5
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                                                                                                                                                     KORRIQPVHILTSVSSLRGTRECSVTSDLDFPTQVIFLKTLNAVASVFIMYSWSFLQQNF
                                                                                                                                                                                                                                        MGQTGKKSEKGFVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILERTEILNQEW
                      YNDDDDDDDDDDDPEEREEKQKDLEDHRDDKESRPPRKFPSDKIFEAISSMFPDKGTAEEL
                                      YNDDDDDDDDDDDEREEEKQKDLEDHRDDKESRPPRKFPSDKIFEAISSMFPDKGTAEEL
                                                                                      MVEDETVLHNIPYMGDEVLDQDGTFIEELIKNYDGKVHGDRECGFINDEIFVELVNALGQ
                                                                                                         MVEDETVILHNI PYMGDEVLDQDGTF I EEL I KNYDGKVHGDRECGF I NDE I FVELVNALGQ
                                                                                                                                                                                                                       MGQTGKKSEKGPVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILERTEILNQEW
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US-10-425-115-281076
US-10-425-114-57456
US-10-425-114-57456
US-09-077-838-2
US-10-213-512-2
US-10-213-778-1
US-10-213-778-1
US-10-213-778-1
US-10-177-478-5
US-11-0174-78-1
US-10-176-884-15
US-10-176-884-15
US-10-177-478-21
US-10-177-478-21
US-10-177-478-21
US-10-177-478-21
US-10-177-478-21
US-11-457-452
US-11-455-114-57452
US-10-425-114-57969
US-10-425-114-577460
US-10-425-114-57969
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Result No.

Score

Match

Length

BB

4038 4038 4038 4038 3933 3812.5 3812.5 2845 2445 2156.5 21149.5

225432109 275432109 276532109

100.0 99.7 99.7 99.7 94.1 100.0 100.

Gaps

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Minimum Maximum

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Total number of

Scoring table: Sequence: Title: Perfect score:

BLOSUM62 Gapop 10.0 ,

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US-10-773-302-2 4051

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 su

summaries

Database

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FILE REFERENCE: 1254-0207P
CURRENT APPLICATION NUMBER: US/10/153,668
CURRENT FILING DATE: 2002-05-24
PRIOR APPLICATION NUMBER: US 60/293,172
PRIOR PILING DATE: 2001-05-25
PRIOR FILING DATE: 2001-05-25
PRIOR FILING DATE: 2001-08-31
PRIOR APPLICATION NUMBER: US 60/316,031
PRIOR FILING DATE: 2001-10-12
PRIOR APPLICATION NUMBER: US 60/328,403
PRIOR APPLICATION NUMBER: UP 2001-157043
PRIOR PILING DATE: 2001-05-25
PRIOR APPLICATION NUMBER: JP 2001-260681
PRIOR APPLICATION NUMBER: JP 2001-260681
PRIOR PILING DATE: 2001-08-30
PRIOR PILING DATE: 2001-10-10
NUMBER: OF SEQ ID NOS: 488
SOFTWARE: PACENTIN OS: 488
SOFTWARE: PACENTIN TAGE
LENGTH: 746
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US-10-13-668-232
S-quence 232, Application US/10153668
; Publication No. US20030092616A1
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                                               ; TYPE: PRT
; ORGANISM: Homo
US-10-153-668-232
                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
APPLICANT: HONDA, Goichi
APPLICANT: MATSUDA, Akio
APPLICANT: MURAWATSU, Sh
Query Match
Best Local Similarity
Matches 744; Conserva
                                                                                                                                                                                                                                                                                                                  APPLICANT: MURAWATSU, Shuji
APPLICANT: ISHIZAWA, Kenya
TITLE OF INVENTION: STATE Activating Gene
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 Score 4038; DB 4;
Pred. No. 8.2e-283;
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US-10-231-778-225
                                                                                                                                                                                    Sequence 225, Appublication No.
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                   BLFFDYRYSQADALKYVGIEREMBIP
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                                                                                          YMCSFLFNLNNDFVVDATRKGNKIRFANHSVNFNCYAKVMYVNGDHRIGIFAKRAIQTGE
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US-10-231-778-225
US-10-231-778-225
Publication No. US20030126647A1
Sequence 225, Application US/10231778
Publication No. US20030126647A1
GENERAL INFORMATION:
APPLICANT: Bilodeau, Pierre
APPLICANT: Chaudhury, Abdul M.
APPLICANT: Chaudhury, Abdul M.
APPLICANT: Chaudhury, Abdul M.
APPLICANT: Luo, Ming
APPLICANT: Luo, Ming
APPLICANT: Luo, Ming
APPLICANT: Peacock, William J.
TITLE OF INVENTION: expression of the FIS2 gene
FILE REFERENCE: 72-98A
CURRENT APPLICATION NUMBER: US/10/231,778
CURRENT APPLICATION NUMBER: 09/398,237
PRIOR APPLICATION NUMBER: 09/398,237
PRIOR APPLICATION NUMBER: 60/101,184

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PRIOR FILING DATE: 1998-09-21
PRIOR APPLICATION NUMBER: AU PP6061
PRIOR APPLICATION NUMBER: AU PP6062
PRIOR APPLICATION NUMBER: AU PP6062
PRIOR APPLICATION NUMBER: AU PP6063
PRIOR FILING DATE: 1998-09-22
PRIOR PILING DATE: 1998-09-22
PRIOR PILING DATE: 1999-07-01
PRIOR PILING
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Best Local Similarity
Matches 744; Conserv
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Pred. No. 8.2e-283;
0; Mismatches 2;
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APPLICANT: Watson, Susan R.

APPLICANT: Watson, Susan R.

APPLICANT: Watson, Susan R.

ITILE OF INVENTION: Methods of Diagnosis of Cancer, Compositions and TITLE OF INVENTION: Methods of Screening for Modulators of Cancer FILE REFERENCE: 018501-012500US

CURRENT APPLICATION NUMBER: US/10/295,027

CURRENT FILING DATE: 2002-11-13

PRIOR APPLICATION NUMBER: US 99/663,733

PRIOR APPLICATION NUMBER: US 99/663,733

PRIOR APPLICATION NUMBER: US 60/350,666

PRIOR APPLICATION NUMBER: US 60/350,464

PRIOR APPLICATION NUMBER: US 60/332,464

PRIOR FILING DATE: 2001-11-21

PRIOR APPLICATION NUMBER: US 60/332,464

PRIOR FILING DATE: 2001-11-21

PRIOR APPLICATION NUMBER: US 60/332,464

PRIOR FILING DATE: 2001-11-21

PRIOR APPLICATION NUMBER: US 60/334,393

PRIOR APPLICATION NUMBER: US 60/340,376

PRIOR PILING DATE: 2001-11-21

PRIOR PILING DATE: 2001-11-21

PRIOR APPLICATION NUMBER: US 60/340,376

PRIOR PILING DATE: 2001-11-21
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TYPE: PRT
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Best Local S
Matches 744
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APPLICANT: Aziz, Natasha
APPLICANT: Ginsberg, Wendy
APPLICANT: Gish, Kurt C.
APPLICANT: Glynne, Richard
APPLICANT: Hevezi, Peter A
APPLICANT: Marck, David H.
APPLICANT: March, Richard
APPLICANT: Matson, Susan R
APPLICANT: Watson, Susan R
APPLICANT: Eos Biotechnolo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 710, Applic Publication No. US20 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US 60/347,349
FILLING DATE: 2002-01-10
APPLICATION NUMBER: US 60/355,250
FILING DATE: 2002-02-08
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APPLICATION NUMBER: US 60/347,211
FILING DATE: 2002-01-08
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Hevezi, Peter A
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Pred. No. 8.2e-283;
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APPLICANT: DAG, William J.

APPLICANT: PERCOCK, William J.

APPLICANT: PERCOCK, William J.

TITLE OF INVENTION: expression of the FIS2 gene

FILE REFERENCE: 72-98A

CURRENT PILING DATE: 2002-11-08

CURRENT FILING DATE: 2002-11-08

PRIOR APPLICATION NUMBER: 09/398,237

PRIOR APPLICATION NUMBER: 09/398,237

PRIOR FILING DATE: 1999-09-20

PRIOR FILING DATE: 1998-09-21

PRIOR APPLICATION NUMBER: AU PP6061

PRIOR APPLICATION NUMBER: AU PP6062

PRIOR APPLICATION NUMBER: AU PP6063

PRIOR PILING DATE: 1998-09-22

PRIOR APPLICATION NUMBER: AU PP6063

PRIOR FILING DATE: 1999-07-01

NUMBER OF SEQ ID NOS: 239

SOPTWARE: PATENTIN Ver. 2.0

SEQ ID NO 226

LENGTH: 746
                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 226, Application US/10231778
Publication No. US20030126647A1
GENERAL INFORMATION:
APPLICANT: Bilodeau, Pierre
APPLICANT: Chaudhury, Abdul M.
APPLICANT: Dennis, Elizabeth S.
APPLICANT: Koltunow, Anna M.G.
APPLICANT: Luo, Ming
APPLICANT: Peacock, William J.
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           RESULT 6
US-10-104-047-3162
US-10-104-047-3162; Sequence 3162, Application US/10104047
; Publication No. US20030236392A1
; GENERAL INFORMATION:
APPLICANT: HELIX RESEARCH INSTITUTE
TITLE OF INVENTION: No. US20030236392A1e1 fu
FILE REFERENCE: H1-A0105
; CURRENT APPLICATION NUMBER: US/10/104,047
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; TYPE: PRT
; ORGANISM: Artificial Sequence
; PEATURE:
; OTHER INFORMATION: Descriptio
; OTHER INFORMATION: fragment
US-10-231-778-226
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Similarity 98.3%;
33; Conservative
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                                                      YMCSELENLINNDEVVDATRKGNKIREANHSVNENCYAKVMMVNGDHRIGIFAKRAIQTGE
                                                                                   CKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNEFISEYCGEIISQDEDDRRGKVYDK
                                                                                              CKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNBFISBYCGBIISQDBADRRGKVYDK
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                                         YMCS PLENLNND FVVD ATRKGNK I RFANHS VNPNCYAKVMMVNGDHRIGI FAKRAI QTGE
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Pred. No. 1.5e-279;
7; Mismatches 6;
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RESULT 7
US-11-072-512-3162
; Sequence 3162, Application US/11072512
; Publication No. US20060029945A1
; GENERAL INFORMATION:
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PRIOR APPLICATION NUMBER:
PRIOR FILING DATE:
PRIOR SEQ ID NOS: 4096
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 3162
LENGTH: 707
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; ORGANISM: Homo
US-10-104-047-3162
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Best Local S
Matches 706
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                                                                                                                BLFFDYRYSQADALKYVGIBREMBIP
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Pred. No. 1.5e-266;
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APPLICANT: ISHII, SHIZUKO
APPLICANT: ISHII, SHIZUKO
APPLICANT: ISONO, YUUKO
APPLICANT: HIO, YURI
APPLICANT: HIO, YURI
APPLICANT: HIO, YURI
APPLICANT: HIO, YURI
APPLICANT: IRIE, RYOTARO
APPLICANT: TANGCHIKA, KAORU
APPLICANT: TANGCHIKA, ICHIRO
APPLICANT: TANGCHIKA, ICHIRO
APPLICANT: MAGAHARI, KENUI
APPLICANT: MAGHARI, KENUI
CURRENT APPLICATION NUMBER: US/11/072,512
CURRENT FILING DATE: 2005-03-07
PRIOR APPLICATION NUMBER: US 60/350,978
PRIOR APPLICATION NUMBER: US 60/350,978
PRIOR APPLICATION NUMBER: JP 2001-379298
PRIOR APPLICATION NUMBER: JP 2001-379298
PRIOR PILLING DATE: 2001-11-05
NUMBER OF SEQ ID NOS: 4096
SOFTWARE: PATEMILIN POS: 4096
SOFTWARE: PATEMILIN Ver: 2.1
SEQ ID NO 3162
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-072-512-3162
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Best Local S
Matches 706
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PAEDVDTPPRKKKKHKHLWAAHCRKIQLKKDGSSNHVYNYQPCDHPRQPCDSSCPCVIAQ
                                                     NSSRPSTPTINVLESKDTDSDREAGTETGGENNDKEEEEKKOETSSSSEANSRCQTPIKM
                                                                                                                                                                                      ATPNTYKRKNTETALDNKPCGPQCYQHLEGAKEFAAALTAERIKTPPKRPGGRRRGKLPN
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OTSUKI, TETSUJI
WAKAMATSU, AI
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Pred. No. 1.5e-266;
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Gaps

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321 360 261

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APPLICANT: MATSUDA, ARIO
APPLICANT: MUTRAMATSU, Shuji
APPLICANT: MUTRAMATSU, Shuji
APPLICANT: ISHIZAWA, Kenya
TITLE OF INVENTION: STAT6 Activating Gene
FILE REFERENCE: 1254-02079
CURRENT PILING DATE: 2002-05-24
PRIOR APPLICATION NUMBER: US 60/293,172
PRIOR APPLICATION NUMBER: US 60/293,172
PRIOR APPLICATION NUMBER: US 60/316,031
PRIOR PILLING DATE: 2001-08-31
PRIOR PILLING DATE: 2001-08-31
PRIOR APPLICATION NUMBER: US 60/328,403
PRIOR PILLING DATE: 2001-01-01
PRIOR APPLICATION NUMBER: UP 2001-157043
PRIOR PILLING DATE: 2001-05-25
PRIOR APPLICATION NUMBER: UP 2001-260681
PRIOR PILLING DATE: 2001-08-30
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US-10-153-668-354
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APPLICANT: HONDA, GO
APPLICANT: MATSUDA,
APPLICANT: MURAMATS
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                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 517; Conserv
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LENGTH: 517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION NUMBER: JP 2001-313175
PRIOR FILING DATE: 2001-10-10
NUMBER OF SEQ ID NOS: 448
SOFTWARE: Patentin Ver. 2.0
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RVKESSIIAPAPAEDVDTPPRKKKRKHRLMAAHCRKIQLKKDGSSNHVYNYQPCDHPRQP
                                                                                                                                                                                 PGGRRRGRLPNNSSRPSTPTINVLESKDTDSDREAGTETGGENNDKEEEEKKDETSSSSE 409
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                                                                                          ANSRCQTPIKMKPNIEPPENVEWSGAEASMFRVLIGTYYDNFCAIARLIGTKTCRQVYEF 469
                                                                                                                                                          PGGRRRGRLPNNSSRPSTPTINVLESKDTDSDREAGTETGGENNDKEEEEKKDETSSSSE 180
                                                                                                                                                                                                                                              FKYDCFLHPFHATPNTYKRKNTETALDNKPCGPQCYQHLEGAKEFAAALTAERIKTPPKR 120
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                                                                      ANSRCQTPIKMKPNIEPPENVEWSGAEASMFRVLIGTYYDNFCAIARLIGTKTCRQVYEF
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                                                                                                                                                                                                                                                                                                                                                                                                                      70.2%; Score 2845; DB 4; ilarity 100.0%; Pred. No. 8e-197; Conservative 0; Mismatches 0;
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; NUMBER OF SEQ ID NOS: 14:

; SEQ ID NO 56

; LENGTH: 723

; TYPE: PRT

; ORGANISM: Homo sapiens

US-10-115-482-56
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US-10-115-482-56
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Publication No.
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PRIOR FILING DATE: 2001-06-08
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OR FILING DATE: 2001-04-19
OR APPLICATION NUMBER: 60/285,890
OR FILING DATE: 2001-04-23
OR APPLICATION NUMBER: 60/286,068
OR FILING DATE: 2001-04-24
OR APPLICATION NUMBER: 60/286,292
OR APPLICATION NUMBER: 60/286,292
OR APPLICATION NUMBER: 60/286,292
OR APPLICATION NUMBER: 60/286,292
                                                                                                                                                                                                                                 FILING DATE: 2001-04-06
APPLICATION NUMBER: 60/291,725
FILING DATE: 2001-05-17
APPLICATION NUMBER: 60/294,771
APPLICATION NUMBER: 60/294,771
FILING DATE: 2001-05-31
                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/288,257
FILING DATE: 2001-05-02
APPLICATION NUMBER: 60/291,134
FILING DATE: 2001-05-15
APPLICATION NUMBER: 60/282,020
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                                                                                                                                                                                          FILING DATE: 2001-06-08
                                                                                                                                                                                                              APPLICATION NUMBER: 60/296,965
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FILING DATE: 2001-04-27
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vo. US20030212257A1
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RESULT 10
US-11-097-143-14073
Sequence 14073, Application US/11097143
Publication No. US20050208558A1
GENERAL INFORMATION:
APPLICANT: Venter, J. Craig
APPLICANT: et al.
TITLE OF INVENTION: DETECTION KIT, SUCH AS NU.
TITLE OF INVENTION: DROSOPHILA GENES.
FILE REFERENCE: CL000728
CURRENT APPLICATION NUMBER: US/11/097,143
PRIOR APPLICATION NUMBER: 60/157,832
PRIOR FILING DATE: 1999-10-05
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Matches 466;
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Similarity 61.5%;
66; Conservative 9
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IGIFAKRAIQAGEELFFDYRYSQADALKYVGIERETDV 722
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                                                                                                                                                                                                                                                                QDEADRRGKVYDKYMSSFLFNLNNDFVVDATRKGNKIRFANHSVNPNCYAKVVMVNGDHR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HHIVSASCSNASASAVAETKEGDSDRDTG------NDWASSSSEANSRCQT
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; Pred. No. 1.3e-166;
93; Mismatches 122;
                                                                             NUCLEIC ACID
EXPRESSION OF
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PRIOR FILING DATE: 1999-10-19
PRIOR PELICATION NUMBER: 60/161,932
PRIOR PELICATION NUMBER: 60/164,769
PRIOR APPLICATION NUMBER: 60/173,383
PRIOR APPLICATION NUMBER: 60/173,383
PRIOR APPLICATION NUMBER: 60/173,383
PRIOR PELING DATE: 1999-11-12
PRIOR PELING DATE: 1999-12-28
PRIOR PELING DATE: 2000-01-12
PRIOR APPLICATION NUMBER: 60/194,831
PRIOR PILING DATE: 2000-02-24
PRIOR PILING DATE: 2000-03-23
NUMBER OF SEQ ID NOS: 43008
SOPTWARE: FastSEQ for Windows Version 4
SEQ ID NO 14073
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; ORGANISM: DROSOPHILA
US-11-097-143-14073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 53.2%; Score 2156.5; DB 6; Best Local Similarity 53.9%; Pred. No. 7.4e-147; Matches 432; Conservative 86; Mismatches 176;
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                                                                                                                                                    SIQRGSKKHLLLAPSDVAGWGIFIKDFVQKNEFISEYCGEIISQDEADRRGKVYDKYMCS
                                              KFCNCSSDCQNRFPGCRCKAQCNTKQCPCYLAVRBCDPDLCQACG-ADQFKLTKITCKNV
                                                                 KFCQCSSECQNRFPGCRCKAQCNTKQCPCYLAVRECDPDLCLTCGAADHWDSKNVSCKNC
                                                                                                     DFTPPRKKKKKQRLWSLHCRKIQLKKDSSSNHVYNYTPCDHPGHPCDMNCSCIQTQNFCE
                                                                                                                  VDTPPRKKKKKHRLWAAHCRKIQLKKDGSSNHVYNYQPCDHPRQPCDSSCPCVIAQNFCE
                                                                                                                                                                                             -----IDSCNEASSEDSNOSNSQFSNKDFNHENSKDNGLTVNSAAVABINSIMAGMMNI
                                                                                                                                                                                                                                                     ELKPFAEPCSNSCYMLIDGMKEKLAADS----KTPP------------
                                                                                                                                                                                                                                                                         ETALDNKPCGPQCYQHLEGAKEFAAALTAERIKTPPKRPGGRRRGRLPNNSSRPSTPTIN 371
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEKGPVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILERTEIL---NQEWKQRR
      CVQRGLHKHLLMAPSDIAGWGIFLKEGAQKNEFISEYCGEIISQDEADRRGKVYDKYMCS
                                                                                                                                                                                                                 VLESKOTDSDREAGTETGGENNDK-------BEEEKKDETSSSSEANSRCQTPIKMKPNI
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295 253 235

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178

122

62

Gaps

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CURRENT FILING DATE: 2002-11-08
PRIOR APPLICATION NUMBER: 09/398,237
PRIOR FILING DATE: 1999-09-20
PRIOR FILING DATE: 1999-09-20
PRIOR FILING DATE: 1998-09-21
PRIOR FILING DATE: 1998-09-21
PRIOR PILING DATE: 1998-09-21
PRIOR PILING DATE: 1998-09-22
PRIOR FILING DATE: 1998-09-22
PRIOR PILING DATE: 1998-09-22
PRIOR APPLICATION NUMBER: AU PP6062
PRIOR APPLICATION NUMBER: AU PP6063
PRIOR PILING DATE: 1998-09-22
PRIOR APPLICATION NUMBER: AU P01345
PRIOR APPLICATION NUMBER: AU P01345
PRIOR APPLICATION NUMBER: AU P01346
PRIOR APPLICATION NUMBER: AU P01346
PRIOR APPLICATION NUMBER: AU P01346
PRIOR PILING DATE: 1999-07-01
PRIOR PILING DATE: 1999-07-01
PRIOR FILING DATE: 1999-07-01
PRIOR FILING DATE: 1999-07-01
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APPLICANT: Bilodeau, Pierre
APPLICANT: Chaudhury, Abdul |
APPLICANT: Dennis, Elizabeth
APPLICANT: Koltunow, Anna M.
APPLICANT: Luo, Ming
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; OTHER INFORMATION: ; OTHER INFORMATION: US-10-231-778-224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQ ID NOS: 239
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 224
LENGTH: 760
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Best Local S
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TITLE OF INVENTION: Method for inducing seed development by down-regulating
TITLE OF INVENTION: expression of the FIS2 gene
FILE REFERENCE: 72-98A
CURPENT ADDITION: 12-98A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
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Dennis, Elizabeth S.
Koltunow, Anna M.G.
Luo, Ming
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                                                                                                                                                                                                                                                                                                                                                          SEKGPVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILERTEIL---NQEWKQRR
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                                                              SKELEEAAPSTSTAIKTEPLAKSKQGEDDGVVDVDADCESPMKLEKTESKGDLTDVEKKE
                                                                                                                                                                             EDETVLHNI PYMGDEVLDQDGTFIEELI KNYDGKVHGDRECGFINDEI FVELVNAL----
                                                                                                                                                                                                                                         YDPPHV-----DCVKRAEVTSYNGIPSGPQKVPICVINAVTPIPTMYTWAPTQQNFMV
                                                                                                                                                                                                                                                                                  IQPVHILTSVSSLRGTRECSVTSDLDFPT--QVIPLKTLNAVASVPIMYSWSPLQQNFMV 122
                                                                                                                                                                                                                                                                                                                                   STKVPPEWKRRVKSEYIKIRQQKRYKRADBIKEAWIRNWDEHNHNVQDLYCESKVWQAKP
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-----HRDDKESRPPRK------FPSDKIFEAISSMFPDKGTABELKEKYKELTEQQLP
                                                                                                                                                        EDETVLHNIPYMGDEVLDKDGKFIEBLIKNYDGKVHGDKDPSFMDDAIFVELVHALMRSY 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Description of Artificial Sequence: \mathbf{E}(\mathbf{z}) fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                             53.1%;
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Pred. No. 2.4e-146;
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TITLE OF INVENTION: Chromatin-Regulator Genes
FILE REFERENCE: 0652.1670001
CURRENT APPLICATION NUMBER: US/10/773,302
CURRENT FILING DATE: 2004-02-09
PRIOR APPLICATION NUMBER: US/09/589,892
PRIOR FILING DATE: 2000-06-09
PRIOR FILING DATE: 2000-06-09
PRIOR FILING DATE: 1997-11-10
PRIOR FILING DATE: 1997-11-10
PRIOR APPLICATION NUMBER: US/09/60/1818
PRIOR APPLICATION NUMBER: DE 195 16 776.7
PRIOR APPLICATION NUMBER: DE 195 16 776.7
PRIOR APPLICATION NUMBER: DE 195 16 776.7
PRIOR FILING DATE: 1995-05-10
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US-10-773-302-11
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US-10-773-302-11
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                         Best Loc
Matches
                                                                                                                                                                          NUMBER OF SEQ ID NOS: 21
SOPTWARE: PatentIn version
SEQ ID NO 11
LENGIH: 760
                           Query Match
Tocal Similarity
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APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Jenuwein, Thomas
APPLICANT: Laible, Gotz
APPLICANT: O'Carroll, Donal
APPLICANT: Bisenhaber, Frank
                                                                                                                                                          TYPE: PRT
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                           Conservative
                                                                                                                                   melanogaster
                         52.6%; Score 2131.5; DB 5, 53.9%; Pred. No. 4.7e-145; tive 87; Mismatches 171;
                                                                  DB 5;
                              Indels
                                                                  Length 760;
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618

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424

440

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Gaps

17;

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RESULT 13
US-10-424-599-219717
US-10-424-599-219717, Application US/10424599
; Sequence 219717, Application US/10424599
; Publication No. US20040031072A1
; GENERAL INFORMATION:
APPLICANT: La Rosa Thomas J
; APPLICANT: Kovalic David K
; APPLICANT: Zhou Yihua APPLICANT: Cao Yongwei
; TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
; TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
; FILE REFERENCE: 38-21(53223)B
; CURRENT FILLING DATE: 2003-04-28
; NUMBER OF SEQ ID NOS: 285684
; SEQ ID NO 219717
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FCEKFCNCSSDCQNRFPGCRCKAQCNTKQCPCYLAVRECDPDLCQACG-ADQFKLTKITC
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; ORGANISM: Zea mays
; FEATURE:
; OTHER INFORMATION: Clone ID: ZEAMA-23APR03-C2231_2.p
US-10-739-930-7656
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SEQ ID NO 7656
LENGTH: 895
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APPLICANT: KOVALIC, David K.
TITLE OF INVENTION: NUCLEIC ACID MOLECULES AND
TITLE OF INVENTION: PLANTS AND USES THEREOF FO
FILE REFERENCE: 38-21(53377)B
CURRENT APPLICATION NUMBER: US/10/739,930
CURRENT FILING DATE: 2003-12-18
                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 240; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 7656, Application US/10739930 Publication No. US20040216190A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Glycine max
FEATURE:
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      RKNTETALDNKPCGPQCYQHLEG--
                                                            LPPECTPNIDGPNAKSVQREQSLHSFHTLFCRRCFKYDCFLH-----
                                                                                                IEERSEVLFB-KNEKNSG-----SSDKI------ERQL---
                                                                                                                                                                                          EELIKNYDGK---VHGD-----RECGFINDBIFVELVNALGQYNDDDDDDDDDDDEE
                                                                                                                                                                                                                       VVRFVKLPLVERIPPYTTWIFLDKNORMADDOSVVGRRRIYYDPVGNEALICSDSD----
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nilarity 91.6%;
Conservative
                                                                                                                                                                                                                                                                                     20.5%; Score 829; DB 5; ilarity 29.7%; Pred. No. 7.5e-51; Conservative 100; Mismatches 217
                                     -SLD-
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Pred. No. 5.3e
7; Mismatches
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APPLICANT: LUO, ming
APPLICANT: Peacock, William J.
APPLICANT: Peacock, William J.
TITLE OF INVENTION: Method for inducing seed development by down-regulating
TITLE OF INVENTION: expression of the PIS2 gene
FILE REFERENCE: 72-98A
CURRENT APPLICATION NUMBER: US/10/231,778
CURRENT FILING DATE: 2002-11-08
PRIOR APPLICATION NUMBER: 09/38,237
PRIOR FILING DATE: 1999-09-20
PRIOR FILING DATE: 1998-09-21
PRIOR FILING DATE: 1998-09-22
PRIOR APPLICATION NUMBER: AU PP6062
PRIOR APPLICATION NUMBER: AU PP6062
PRIOR APPLICATION NUMBER: AU PP6063
PRIOR APPLICATION NUMBER: AU PP6064
PRIOR APPLICATION NUMBER: AU PQ1345
PRIOR APPLICATION NUMBER: AU PQ1345
PRIOR APPLICATION NUMBER: AU PQ1346
PRIOR FILING DATE: 1999-07-01
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US-10-231-778-221
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Publication No. US20030126647A1
GENERAL INFORMATION:
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APPLICANT: Chaudhury, Abdul M.
APPLICANT: Dennis, Elizabeth S.
APPLICANT: KOltunow, Anna M.G.
APPLICANT: Luo, Ming
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OTHER INFORMATION:
1-10-231-778-221
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TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
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-VSCGDGSLGEAPRRGEGQCGNWRLLLRQQQRILLGKSDVAGWGAFLKNSVSKNEYLGEY
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RLSELKRKIQGERVRSIKEKFEANRKKV------DAHVSP---FSSAASSRATA
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                                                                                                                                                                       CGEIISQDEADRRGKVYDKYMCSFLFNLNNDFVVDATRKGNKIRFANHSVNPNCYAKVMM
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                                                                 NETCCEKYCGCSKSCKNRFRGCHCAKSOCRSRQCPCFAAGRECDPDVCRNC----W---
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                                                                                                                                                        TGELISHHEADKRGKIYDRANSSFLFDLNDQYVLDAQRKGDKLKFANHSAKPNCYAKVMF
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                                                                                                                                                                                                                                                                                                                                                                                                         PRTRLFRRKGKTRKLKYSTKSAGHPSVWKRIAGGKNQSCKQYTPCG-CLSMCGKDCPCLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                PR----KKKRKHRLW-----AAHCRKIOLKKDGSSNHVYNYQPCDHPRQPCDSSCPCVI
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Search completed: August 11, 2006, 22:49:53 Job time : 131.001 secs

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1. /EMC_Celerra_SIDS3/ptcdata/2/pubpaa/US09_NEW_PUB.pep:*

2. /EMC_Celerra_SIDS3/ptcdata/2/pubpaa/US06_NEW_PUB.pep:*

3. /EMC_Celerra_SIDS3/ptcdata/2/pubpaa/US07_NEW_PUB.pep:*

4. /EMC_Celerra_SIDS3/ptcdata/2/pubpaa/US08_NEW_PUB.pep:*

5. /EMC_Celerra_SIDS3/ptcdata/2/pubpaa/US10_NEW_PUB.pep:*

6. /EMC_Celerra_SIDS3/ptcdata/2/pubpaa/US11_NEW_PUB.pep:*

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US-11-330-403-16696
US-10-953-349-35696
US-10-953-349-35696
US-10-953-349-35696
US-10-953-349-35696
US-11-330-403-11703
US-11-330-403-12871
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US-11-330-403-1849
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US-10-539-630-1
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Best Local Similarity 99.3
Matches 745; Conservative
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Result No.

270. 6.7 1212 6 US-10-449-902-46235 270. 5. 7 1051 7 US-11-330-403-8440 269. 5. 6.7 332 7 US-11-330-403-8944 269. 5. 6.6 340 7 US-11-330-403-14719 265. 5. 6.6 844 7 US-11-330-403-14719 265. 5. 6.6 844 7 US-11-330-403-14719 264 6.5 340 7 US-11-330-403-18820 264 6.5 340 7 US-11-330-403-18820 264 6.5 340 7 US-11-330-403-13539 256 6.3 349 7 US-11-330-403-13539 256 6.3 349 7 US-11-330-403-1437 256 6.3 347 7 US-11-330-403-1437 256 6.3 347 7 US-11-330-403-1437 256 6.3 342 7 US-11-330-403-1437 256 6.3 342 7 US-11-330-403-1643 256 6.3 412 6 US-10-431-337-2580 254 6.3 637 6 US-10-330-403-1643 255 6.3 412 6 US-10-451-937-2580 252. 5. 6.3 637 6 US-10-330-403-6172	45	44	43	42	41	40	39	38	37	36	35	34	ω S	32	31	30	29	28	27	26
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	6172, A	35907,	2580, A	1643, A	4107, A	480, App	3143, A	16378,	394, Ap	13539,	18820,	5229, Ap	358, Ap	4780, A	14719,	31539,	15444,	6904, A	8440, A	46235,

ALIGNMENTS

CURRENT APPLICATION NUMBER: US/10/539,630
CURRENT FILING DATE: 2005-06-17
PRIOR APPLICATION NUMBER: JP2002-373144
PRIOR FILING DATE: 2002-12-24
NUMBER OF SEQ ID NOS: 14
SEQ ID NO 1
LENGTH: 751
TYPE: PRT
ORGANISM: Human
US-10-539-630-1 Sequence 1, Application US/10539630
Publication No. US20060104981A1
GENERAL INFORMATION:
APPLICANT: Takeda Chemical Industries, Ltd.
TITLE OF INVENTION: Preventing and treating
FILE REFERENCE: 3130WOOP agent for cancer

99.5%;

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DB 6;

Length

751;

1 MGQTGKKSEKGPVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILERTEILNQEW MVEDETVLHNI PYMGDEVLDQDGTFI BELI KNYDGKVHGDRECGFINDE I FVELVNALGQ KQRRIQPVHILTSVSSLRGTRECSVTSDLDFPTQVIFLKTLNAVASVFIMYSWSFLQQNF GRLPNINGSRPSTPTINVLESKOTDSDREAGTETGGENINDKEEBEKKDETSSSSEANSRCQ NYSFHATPNTYKRKNTETALDNKPCGPQCYQHLEGAKEFAAALTAERIKTPPKRPGGRRR --PFHATPNTYKRKNTETALDNKPCGPQCYQHLEGAKEFAAALTAERIKTPPKRPGGRRR MVEDETVLHNI PYMGDEVLDQDGTFIEELI KNYDGKVHGDRECGFINDEI FVELVNALGQ KQRRIQPVHILTSVSSLRGTRECSVTSDLDFPTQVIPLKTLNAVASVPIMYSWSPLQQNF MGQTGKKSEKGPVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILERTEILNQEW ; Score 4030.5; ; Pred. No. 2.3e. 0; Mismatches Indels 5 Gaps 355 300 180 360 240 180 120 297 240 120 60 60

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TITLE OF INVENTION: SEQUENCE-DETERMINED DNA FR.
TITLE OF INVENTION: ENCONDED THERBY
FILE REFERENCE: 2750-1579PUS2
CURRENT APPLICATION NUMBER: US/10/953,349
CURRENT FILING DATE: 2004-09-30
NUMBER OF SEQ ID NOS: 40252
SOFTWARE: Patentin version 3.3
SEQ ID NO 35469
LENGTH: 777
TYPE: PRT
ORGANISM: Zea mays subsp. mays
US-10-953-349-35469
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Publication NO. US20060107345A1
GENERA, INFORMATION:
APPLICANT: ALEXANDROV, Nickolai et al.
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Best Local
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                                                                                                                                                                                                                                                                                                                VIPLKTLNAVASVPIMYSWSPLQQN-FMVEDETVL--HNIPY--MGDEVL---DQDGTFI 146
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                                                                                                       ----SLD----KTM--DAVLDSFDNLFCRRCLVFDCRLHGCSQNLVFFTEKQFYSF-
                                                                                                                                LPPECTPNIDGPNAKSVQREQSLHSFHTLFCRRCFKYDCFLH------
                                                                                                                                                                    IEERSEVLFE-KNEKNSG-----SSDKI------ERQL---
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                                                                                                                                                                                                                             EEIPEPEEEKHFFTEGEDQLIWRATQEHG-LNREV----VNVLCQFID
                                                                                                                                                                                                                                                          EELIKNYDGK---VHGD------RECGFINDEIFVELVNALGQYNDDDDDDDDDDEE 195
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                                                                       RKNTETALDNKPCGPQCYQHLEG-----
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                                           EPDENKKPCGRQCYLRWRGGFQEIHDVGLSGCATYNMESGTVSHKVDVSIMSESED
                                                                                                                                                                                                                                                                                                                                                20.4%; Score 828; DB 6; I
29.5%; Pred. No. 6.5e-44;
tive 100; Mismatches 213;
----AKEFAAALTAERIKTPP-
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                                                                                                                                    PFHATPNTYK 307
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APPLICANT: ALEXANDROV, Nickolai et al.
TITLE OF INVENTION: SEQUENCE-DETERMINED DNA
TITLE OF INVENTION: ENCONDED THERBY
FILE REFERENCE: 2750-1579PUS2
CURRENT APPLICATION NUMBER: US/10/953,349
CURRENT FILING DATE: 2004-09-30
NUMBER OF SEQ ID NOS: 40252
SOFTWARE: PatentIn version 3.3
SEQ ID NO 35468
LENGTH: 895
TYPE: PRT
ORGANISM: Zea mays subsp. mays
US-10-953-349-35468
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US-10-953-349-35468
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Publication No. US20060107345A1
GENERAL INFORMATION:
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Best Local Similarity
Matches 240; Conserv
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                                                                                         REEKQKDLEDHRDDKESRPPRKFPSDKIFEAISSMFPDKGTAEELKEKYKELTEQQLPGA 255
                                                                                                                                                                                VIPLKTLNAVASVPIMYSWSPLQQN-FMVBDBTVL--HNIPY--MGDEVL----DQDGTFI 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PCVIAQNECEKECOCSSECONREPGCEC-KAQCNTKOCPCYLAVRECDEDLCLTCGAADH 593
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                                                                IEERSEVLFE-KNEKNSG-----SSDKI-----
                                                                                                                         EEIPEPEEEKHFFTEGEDQLIWRATQEHG-LNREV----VNVLCQFID-----STPSE
                                                                                                                                                  EELIKNYDGK---VHGD-----RECGFINDEIFVELVNALGQYNDDDDDDDDDDDEE 195
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                               LPPECTPNIDGPNAKSVQREQSLHSFHTLFCRRCFKYDCFLH-----PFHATPNTYK 307
                                                                                                                                                                                                                                             20.4%; Score 828; DB 6; I larity 29.5%; Pred. No. 7.6e-44; Conservative 100; Mismatches 213;
    ---SLD----KTM--DAVLDSFDNLFCRRCLVFDCRLHGCSQNLVFPTEKQPYSF-
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RESULT 4
US-10-953-349-35467
; Sequence 35467, Application US/10953349
; Publication No. US20060107345A1
; GENERAL INFORMATION:
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US-10-953-349-35467
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CURRENT FILING DATE: 2004-09-30
NUMBER OF SEQ ID NOS: 40252
SOFTWARE: PatentIn version 3.3
SEQ ID NO 35467
LENGTH: 913
                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 240; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: ALEXANDROV, Nickolai et al.
TITLE OF INVENTION: SEQUENCE-DETERMINED
TITLE OF INVENTION: ENCONDED THERBY
FILE REFERENCE: 2750-1579PUS2
                                                                                                                                                                                                                                                                                                                     TYPE: PRT
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EEIPEPEEEKHFFTEGEDQLIWRATQEHG-LNREV---
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                                                                                                   VVRFVKLPLVERIPPYTTWIFLDKNQRMADDQSVVGRRRIYYDPVGNEALICSDSD----
                                                                                                                          VIPLKTLNAVASVPIMYSWSPLQQN-FMVEDETVL--HNIPY--MGDEVL---DQDGTFI 146
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                                                                                                                                                                                    20.4%; Score 828; DB 6; ilarity 29.5%; Pred. No. 7.8e-44; Conservative 100; Mismatches 213;
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                                                                                                                                       APPLICANT: ALEXANDROV, Nickolai et al.
TITLE OF INVENTION: SEQUENCE-DETERMINED DNA FR.
TITLE OF INVENTION: ENCONDED THERBY
FILE REFERENCE: 2750-1579PUS2
CURRENT FILING DATE: 2004-09-30
CURRENT FILING DATE: 2004-09-30
CURRENT FILING DATE: 2004-09-30
CURRENT FILING DATE: 3004-09-30
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CURRENT F
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US-10-953-349-37881
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Publication No. US20060107345A1
GENERAL INFORMATION:
                                    Query Match
Best Local Similarity
Matches 260; Conserv
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QTGKKSEKG------PVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILE 51
                                         20.0%; Score 809.5; DB 6; 26.8%; Pred. No. 1.1e-42;
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Sequence 37880, Application US/10953349 Publication No. US20060107345A1 GENERAL INFORMATION:
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                                                          YDYRYGPDQA
                                                                                            SFLENLNNDFVVDATRKGNKIRFANHSVNPNCYAKVMVNGDHRIGIFAKRAIQTGEELF
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                                                                           FDYRYSOADA
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Best Local Simi
Matches 260;
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TYPE: PRT
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APPLICANT: ALEXANDROV, Nickolai et al.
TITLE OF INVENTION: SEQUENCE-DETERMINED DNA FR.
TITLE OF INVENTION: ENCONDED THERBY
FILE REFERENCE: 2750-15799US2
CURRENT APPLICATION NUMBER: US/10/953,349
CURRENT FILING DATE: 2004-09-30
NUMBER OF SEQ ID NOS: 40252
SOFTWARE: Patentin version 3.3
SEQ ID NO 37880
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                                         PGCRC-KAQCNTKQCPCYLAVRECDPDLCLTCGAADHWDS-----
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Pred. No. 1.1e-42;
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US-10-953-349-37882
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Best Local Similarity
Matches 252; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID NO 37882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 37882, Application US/10953349 Publication No. US20060107345A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: SEQUENCE-DETERMINED DI
TITLE OF INVENTION: ENCONDED THERBY
FILE REFERENCE: 2750-1579US2
CURRENT APPLICATION NUMBER: US/10/953,349
CURRENT FILLING DATE: 2004-09-30
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SOFTWARE: PatentIn version 3.3
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               EHSPGKROKVFTSDISFEGNIMNKLSIPEIRDT---RLESRESGG----
                                              GRLPNNSSRPSTPTI------NVLESKDTDSDREAGTETGGENNDKEEEEKKDETS 405
                                                                                                                                                                                     NKPCGPQCY----QHLEGAKE------
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                                                                                                                 ----FAAALTAERIKTPP-----
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               -DKLRILDEST
                                                                                                                 ---KRPGGRRR
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US-11-330-403-9237
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US-11-330-403-9237
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CURRENT APPLICATION NUMBER: US/11/330,403
CURRENT FILING DATE: 2006-01-12
NUMBER OF SEQ ID NOS: 19250
SEQ ID NO 9237
LENGTH: 895
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 9237, Application US/11330403
Publication No. US20060159563A1
GENERAL INFORMATION:
APPLICANT: Abad, Mark S.
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Best Local Similarity
Matches 220; Conserv
                              356
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                                                                                                                                                                                                                                                                                                                                        VVQLAKLEVVDKIEPYTTWIFLDKNQRMADDQLVCRRRIY------Y 184
                                 GRLPNNSSR-----PSTPTINVLESKDTDSD--
                                                                                                                                   DFQLFLGKTMDVALDSFDNLFCRRCLVFDCRLHGCSQNLVFPSEKQPYGHGLDE---NKR
                                                                                                                                                                   DGPNAKSVQREQSLHSFHTLFCRRCFKYDCFLH-----PFHATPNTYKRKNTETALDNK 318
                                                                                                                                                                                                                                                                        DPIVNEALIC---
                                                                                                                                                                                                                                                                                                        DGKVHGDRECGFINDEIFVELVNALGQYNDDDDDDDDDDDDDEERE-----EKQ---KDLE
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--- SEDSNRDEDNIKSTSIVETSRSKITNSEYADKSVTPPPGDASETENVSPDMPLRTLG
                                                               PCGDQRYLRRREVYQDTCNDDRNACTTYNTDSRSSSLKVSATILSE----
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                                                                                                                                                                                                                                                                                                                                                                                                          19.0%; Score 769; DB 7;
27.3%; Pred. No. 3.6e-40;
tive 94; Mismatches 244
                                                                                                 -----KTPPKRPGGRRR
                                                                                                                                                                                                                                                                      -----SESDDDVPEPEEEKHVFTEGEDQLIWKATQ
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US-11-330-403-16696
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Publication No. US20060159563A1

GENERRAL INFORMATION:
APPLICANT: Abad, Mark S.
TITLE OF INVERTION: Genes and Uses for Plant Improvement
FILE REFERENCE: 38-21(53629)B

CURRENT APPLICATION NUMBER: US/11/330,403

CURRENT FILING DATE: 2006-01-12

NUMBER OF SEQ ID NOS: 19250

SEQ ID NO 16696

LENGTH: 497

TYPE: DEF
                                                                                                                                                                                                                                                                                                                   Query Match
Best Local
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                                                                                                                                                                                                                                  266 HIRRNIYLVKKKRDNANDGV----GCTNCGPNCDRSCVCRVQCISCSKGCSCPESCGNR- 320
                                                                                                                                                                                                                                                                                                                    Similarity
                             DFVVDATRKGNKIRFANHSVNPNCYAKVMMVNGDHRIGIFAKRAIQTGEELFFDYRYSQ-730
                                                                                                                   HCRK----IQLKKDGSSNHVYNYQPCDHPRQPCDSSCPCVIAQNFCEKFCQCSSECQNRF 557
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                                                                                                KTEHCGWGVEAABSINKEDFIVEYIGEVISDAQCEQRLWDMKHKGMKDFYMC----BIQK 387
                                                                                                                                                                                                 PGCRCKAQCNTKQCPCYLAVRECDPDLCLTCGAADHWDSKNVSCKNCSIQRGSKKHLLLA 617
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -----KNVSCKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNEFISEYCGEIIS
                                                                                                                                                                                                                                                                                                7.4%; Score 299.5; DB 7; ilarity 27.1%; Pred. No. 3.1e-11; Conservative 36; Mismatches 76;
 ----ADALKYVGIERE 742
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RESULT 11
US-10-953-349-35695
; Sequence 35695, Application US/10953349
; Publication No. US20060107345A1
; GENERAL INFORMATION:
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US-10-953-349-35695
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US-10-953-349-35696
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Publication No. US20060107345A1
GENERAL INFORMATION:
APPLICANT: ALEXANDROV, Nickolai et al.
TITLE OF INVENTION: SEQUENCE-DETERMINED DNA FRAGMENTS AND CORRESPONDING POLYPEPTIDES
TITLE OF INVENTION: ENCONDED THERBY
FILE REFERENCE: 2750-1579FUS2
CURRENT APPLICATION NUMBER: US/10/953,349
CURRENT FILING DATE: 2004-09-30
NUMBER OF SEQ ID NOS: 40252
SOFTWARB: Patentin version 3.3
SEQ ID NO 35696
LENGTH: 511
TYPE: PRT
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SEQ ID NO 35695
LENCTH: 513
TYPE: PRT
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TITLE OF INVENTION: SEQUENCE-DETERMINED DNA FRAGMENTS AND CORRESPONDING POLYPEPTIDES
TITLE OF INVENTION: ENCONDED THERBY
FILE REPERENCE: 2750-1579PUS2
CURRENT APPLICATION NUMBER: US/10/953,349
CURRENT FILING DATE: 2004-09-30
NUMBER OF SEQ ID NOS: 40252
                                                                                                                                                                                                         Local Similarity
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Local Similarity 33.7%; Pred. No. 4.6e-11;
ses 70; Conservative 28; Mismatches 84; Indels
                                                                                                                                536 CVIAQNECE-----KECQCSSECQNREPGCRCKAQCNTKQCPC-----YLAVRECDPD 583
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                                          584 LCLTCGAADHWDSKNVSCKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNEFISEYCG 643
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  YC-RCG---
                                                                                       CVEAPSYTHIDSNAFSYRKHKSQTEEDIAVCECQYDILDPESPCGDRCLNLLTNTECTPG 66
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                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                 mays subsp. mays
                                                                                                                                                                                                       7.3%; Score 297; DB 6; Length 513; 33.7%; Pred. No. 4.6e-11;
-VYCKNORFOKCOYARTRLVRTGGRGWGLVADENIMAGOFVIEYCG
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                                                                                                                                                                                    Mismatches
                                                                                                                                                                                    84; Indels
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US-11-330-403-11703
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US-11-330-403-11703
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US-10-953-349-35694
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Publication No. US20060159563A1

GENERAL INFORMATION:
APPLICANT: Abad, Mark S.
TITLE OF INVENTION: Genes and Uses for Plant Improvement
FILE REPERENCE: 38-21(53629)B

CURRENT APPLICATION NUMBER: US/11/330,403

CURRENT FILING DATE: 2006-01-12

NUMBER OF SEQ ID NOS: 19250

SEQ ID NO 11703

LENGTH: 425

TYPE: 1925
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Publication No. US20060107345A1
GENERAL INFORMATION:
APPLICANT: ALEXANDROV, Nickolai et al.
TITLE OF INVENTION: SEQUENCE-DETERMINED
TITLE OF INVENTION: ENCONDED THERBY
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                                                                                                         Query Match
Best Local
                                                                                  Matches
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CURRENT APPLICATION NUMBER: US/10/953,349
CURRENT FILING DATE: 2004-09-30
NUMBER OF SEQ ID NOS: 40252
                                                                                                                                                                                                                                              LENGTH: 4
TYPE: PRT
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                         465 QVYEFRVKESSIIAPAPAEDVDTPPRKKKRKHRLWAAHC------
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                                                                                  80;
                                                                                                         Similarity
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                                                                            7.2%; Score 291; DB 7; llarity 28.4%; Pred. No. 8.6e-11; Conservative 33; Mismatches 95
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ITITLE OF INVENTION: Genes and Uses for Plant Imperium of Invention (Access and Uses for Plant Imperium of Imper
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US-11-330-403-9402
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Publication No. US20060159563A1
GENERAL INFORMATION:
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Best Local Similarity 22.4
Matches 108; Conservative
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  RY 728
                                                     -EISKDFTIDATFKGNTSRFLNHSCDPNCKLEKWQVDGETRVGVFASRSIQVGEHLTYDY
                                                                                  AVKTKRCGWGAISLEPLEKGDFIIEYVGEVINDATCEQRLWDMKRRG---DKNFYMC---
                                                                                                                                                                                                                                                                           STIRDFTAAVĆKPPHFTFIRRSILKGLYMSC-----SKNCHCSDMCTNKPFRKDKKIK 254
                                                                                                                                                                                                                                                                                                                              FHL-----TCAAEDTTNFIAE----SFKCPQHEVFCRLPVPYVNEDFKID
                                                                                                                                                                                                                                                                                                                                                                                                                                    NHVYNYQPCDHPRQPCDSSCPCVIAQNFCEKFCQCSSECQNRFPGCRCKAQCNTKQCPCY 574
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Gaps

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201

514 160

131

103

726

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Sequence 2871, Application US/1130403
; Sequence 2871, Application US/1130403
; Publication No. US20060159563A1
; GENERAL INFORMATION:
; APPLICANT: Abad, Mark S.
; TITLE OF INVENTION: Genes and Uses for Plant Improvement
; FILE REFERENCE: 38-21(5362)B
; CURRENT APPLICATION NUMBER: US/11/330,403
; CURRENT FILING DATE: 2006-01-12
; NUMBER OF SEQ ID NOS: 19250
; SEQ ID NO 2871
; LENGTH: 980
; TYPE: PRT
; ORGANISM: ASPERGILLUS NIDULANS FGSC A4
US-11-330-403-2871
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US-11-330-403-2871
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Search completed: August 11, 2006, 22:50:45 Job time: 28.2318 secs
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                                                                                                                                     RRMRQYDAEGIKHF--YFMSLSKGEFVDATKKKINLGRFCNHSCNPNCYVDKWVVGEKLRM 339
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Title:
Perfect score:
Sequence:
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 200000000
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GenEmbl:*
1: gb env:*
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Gapop 10.0 , Gapext 1.0
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Copyright (c) 1993 - 2006 Biocceleration Ltd.
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

18	17	16	15	14	13	12	11	10	9	8	7	6	Ç	4	ω	N	Ļ	Result No.	
1969	1969	1973.8	1973.8	1993.8	1993.8	1993.8	2204.2	2216	2229	2236.2	2236.2	2236.2	2241	2241	2241	2241	2241	Score	
87.9	87.9	88.1	88.1	89.0	89.0	89.0	98.4	98.9	99.5	99.8	99.8	99.8	100.0	100.0	100.0	100.0	100.0	Query Match	æ
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BC016391	BC003772	MMU52951	AK220174	AK092676	AX747667	AR718692	AB179385	BC010858	DD208658	HSZESTENH	AX821950	BD186247	HSU61145	AX333675	AR473734	A58329	CQ714720	ID	
BC016391 Mus muscu	BC003772 Mus muscu	U52951 Mus musculu	AK220174 Mus muscu	AK092676 Homo sapi	AX747667 Sequence	AR718692 Sequence	AB179385 Macaca fa	BC010858 Homo sapi	DD208658 Expressio	X95653 Н. варіелв m	AX821950 Sequence	BD186247 STAT6 act	U61145 Human enhan	AX333675 Sequence	AR473734 Sequence	A58329 Sequence 1	CQ714720 Sequence	Description	

ALIGNMENTS

당 왕	망	Ş	ఠ	Ş	Quer Best Matc	ORIGIN		m	FEATURES		TOTTENAT		TITLE	REFERENCE AUTHORS			ORGA	KEYWORDS	VERSION	ACCESSION	Locus	CQ714720	PRCIII.T 1
121 ATGTTTAGTTCCAATCGTCAGAAAATTTTTGGAAAGAACGGAAAATCTTAAACCAAGAATGG 180	70 TCAGAGTACATGCGACTGAGACAGCTCAAGAGGTTCAGACGAGCTGATGAAGTAAAGAGT 129	61 TCAGAGTACATGCGACTGAGACAGCTCAAGAGGTTCAGACGAGCTGATGAAGTAAAGAGT 120	10 ATGGGCCAGACTGGGAAGAAATCTGAGAAGGGACCAGTTTGTTGGCGGAAGCGTGTAAAA 69	1 ATGGGCCAGACTGGGAAGAAATCTGAGAAAGGGACCAGTTTGGTTGG	Query Match 100.0%; Score 2241; DB 2; Length 2511; Best Local Similarity 100.0%; Pred. No. 0; Matches 2241; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		/organisms organisms /mol_type="unassigned DNA" /db xref="taxon:9666"	source 12511	Location/Qu	PE Corporation (NY) (US)	Chereor TNAT. Patent: WO 02068579-A 654 06-SED-2002:	exons or transcripts, for detecting express		ENCS 1 HORS Venter, C.J., Adams, M.C., Li, P.W. and Myers, E.W.	<pre>Mammalia; Eutheria; Buarchontoglires; Primates; Catarrhini; Hominidae; Homo.</pre>	Eukaryota; Metazoa;	NISM Homo sapiens	RDS . RDS .	,	ITION Sequence 654 from Facent WOOZU68579: SION CQ714720	CQ714720	720	

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1201 AAAGATGAAACTTCGAGCTCCTCTGAAGCAAATTCTCGGTGTCAAACACCAATAAAGATG 1260 	1090 AACAGTAGCAGGCCCAGCACCCCACCATTAATGTGCTGGAATCAAAGGATACAGACAG	AACAGTAGCAGGCCCAGCAACCCACCATTAATGTGCTGGAATCAAAGGATACAGACAG	ACCAGCATTTGGAGGGAGCAAAGGAGTTTGCTGCTGCTCTCA 	1 GCAACACCCAACACTTATAAGCGGAAGAACACAGAAACAGCTCTAGACAACAAACCTTGT 96 	TCATAC	AAGGAAAAATATAAAGAACTCACCGAACAGCAGCTCCCAGGGGGACTTCCTCCTGAATGT 78 ACCCCCAACATAGATGGACCAAATGCTAAATCTGTTCAGAGAGAG	AATAAAATTTTYGAAGCCATTTCCTGAATGTTTCCAGAIAAGGGCACAGCAGCAGAAGAACTA 72 AAGGAAAAATATAAAGAACTCACCGAACAGCAGCTCCCCAGGCGCACTTCCTCCTGAATGT 78	ANAMATIC TOGAMGATICA COCUMENT TATAHAMAMAGCUGUCUACU TUGAMATITICCTICA TOGAMAGATUTTTTTGAAGCCAFTTCCTCAATGTTTCCAGATAAGGGCACAGCAGAAGAACTA 72	1 AAAGATCTGGAAGATCACCGAAGATGATAAAAGAAAAGCCGCCCACCTCGGAAATTTCCTTCT 66	ATTANTON TON TON THE THE TON THE TENT OF THE TON TON THE TON TON TON THE TON TON TON THE T	AGAGAATGGGTTTATAAATGAAGATTTTTTTTGTGGAGTTGAATGCCCTTTGGTCAA 5	O AIGGIGGAAGAIGAAACIGIIIIACAIAACAIICCIIAIAIGGGAAAGIIGAAAGIIIIACAI 42 1 CAGGAIGGIACTITCATTGAAGAACTAATAAAAAATTATGAIGGGAAAGIACACGGGGAT 48	ATGGTGGAAGATGAAACTGTTTTACATAACATTCCTTATATGGGAGATGAAGTTTTAGAT 42	301 AGGGAGIGIT CGGIGACCAGIGACITGGA IIICCAAAAGICAICCCAILAAAAACI 303 301 CTGAAATGCAGTTGCTTCAGTACCCATAATGTATTCTTGGTCTCCCCTACAGCAGAATTTT 360 310 CTGAAATGCAGTTGCTTCAGTAACCATAATGTATTCTTGGTCTCCCCTACAGCAGAATTTT 369 310 CTGAAATGCAGTTGCTTCAGTAACCATAATGTATTCTTGGTCTTCCCTTACAGCAGAATTTT 369	O AAACAGCGAAGGATACAGCCTGTGCACATICCTGACTTCTGTGAGCCTCATTGCGCGGGGACTT 1 AGGGAGTGTTCGGTGACCAGTGACTTGGATTTTCCAACACAAGTCATCCCATTAAAGACT 3	1 AAACAGCGAAGGATACAGCCTGTGCACATCCTGACTTCTGTGAGCTCATTGCGCGGGACT
RESULT 2 A58329 A58329 2600 bp DNA linear PAT 05-MAR-1998 LOCUS A58329 2600 bp DNA linear PAT 05-MAR-1998 DEFINITION Sequence 1 from Patent WO9635784.	2221 AGAGAAA 2230 AGAGAAA	Db 2110 ATGGTTÄÄCGGTĞÄTCÄCÄĞĞÄTÄĞĞTÄTTTTĞCCÄÄĞÄĞĞĞĞCCATCCÄĞÄCTGGCĞÄÄ 2169 Oy 2161 GAĞCTGTTTTTTGATTACAGATACAĞCCAĞĞCTĞATĞCCCTĞAAĞTATĞTCĞĞCATCĞAA 2220	2050 GGTAACAAATTCGTTTTGCAAATCATTCGGTAAATCCAAACTGCTATGCAAAGTTATG 2101 ATGGTTAACGGTGATCACAGAGATAGGTATTTTTTGCCAAGAGAGCCATCCAGACTGGCGAA	QY 1981 TACATGTGCAGCTTTCTGTTCAACTTGAACAATGATTTTGTGGTGGATGCAACCCGCAAG 2040	Qy 1921 TACTGTGGAGAGATTATTTCTCAAGATGAAGCTGACAGAAGAGGGAAAGTGTATGATAAA 1980 	Qy 1861 GTGGCAGGCTGGGGGATTTTTATCAAAGATCCTGTGCAGAAAAATGAATTCATCTCAGAA 1920	QY 1801 TGCAAGAACTGCAGTATTCAGCGGGGCTCCCAAAAAGCATCTATTGCTGGCACCATCTGAC 1860	QY 1741 GACCCTGACCTCTGTCTTACTTGTGGAGCCGCTGACCATTGGGACAGTAAAAAATGTGTCC 1800	OY 1681 CGCTGCAAAGCACAGTGCAACACCAAGCAGTGCCCGTGCTACCTGGCTGTCCGAGAGTGT 1740	OY 1621 AATTTTIGTGAAAAGTTTTGTCAATGTAGTTCAGAGTGTCAAAACCGCTTTCCGGGATGC 1680	Db 1561 CAACCCTGTGATCATCCACGGCAGCCTTGTGACAGTTCGTGCCCTTGTGTGATAGCACAA 1620	OY 1501 GCACACTGCAGAAAGATACAGCTGAAAAAAGGACGGCTCCTCTAACCATGTTTACAACTAT 1560	OY 1441 CCCGCTGAGGATGACTCCTCCAAGGAAAAAGAAGGAAAACACCCGGTTGTGGGCT 1500	OY 1381 AAAACATGTAGACAGGTGTATGAGTTTAGAGTCAAAGAATCTAGCATCATAGCTCCAGCT 1440	QY 1321 AGAGTCCTCATTGGCACTTACTATGACAATTTCTGTGCCATTGCTAGGTTAATTGGGACC 1380	QY 1261 AAGCCAAATATTGAACCTCCTGAGAATGTGGAGTGGAGT

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PATENT: WO 9635784-A 1 14-NOV-1996;
BOEHRINGER INCELHEIM INT (DE)
Other publication DE 19516776 961114.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
Hominidae; Homo.
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ATGGTGGAAGATGAAACTGTTTTACATAACATTCCTTATATGGGAGATGAAGTTTTAGAT
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                                                                              CTGAATGCAGTTGCTTCAGTACCCATAATGTATTCTTGGTCTCCCCTACAGCAGAATTTT
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/mol_type="unassigned DN
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DEFINITION ACCESSION VERSION VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS TITLE JOURNAL FEATURES SOURCE	Db QY Db QY Db Db AR473734 AR473734 LOCUS	8 8 8 8 8 8 8 8	p
Sequence 1 from patent US 6689583. AR473734 AR473734.1 GI:42712196 Unknown. Unknown. Unclassified. 1 (bases 1 to 2600) 1 (bases 1 to 2600) 2	30 ĠĠŢŅĀĊĀĀĀŢŢĠĊŢĀĀ	1801 TGCAAGAACTIGCAGTATTCAGCGGGGCTCCAAAAAGCATCTATTGCTTGGCACCATCTGAC 1860	1501 GCACACTGCAGAAAGATACAGCTGAAAAAGGACGGCTCCTCTAACCATGTTTACAACTAT 1560
Db 810 Qy 781 Db 870 Qy 841 Db 930 Qy 901 Db 990		Db 270 Qy 241 Qy 301 Qy 301 Qy 361 Qy 361 Qy 421 Db 510	ORIGIN Query Match Best Local a Matches 224. Qy 1 Db 90 Qy 61 Db 150 Qy 121 Db 210 Qy 181
	AGAGAATGTCGGTTTATAAATGATCAAATTTTTGTCGAGTTGGTCAATGCCCTTGGTCAA	AAACAGCAAAGGATACAGCCTGTGACATCCTGACTTCTGTGAGCTCATTGCGCGGGACT AGGAGTGTTCGGTGACCCAGTGACTTCGACTTCTGTGAGCTCATTCGCCGGGACT AGGAGTGTTCGGTGACCAGTGACCTTGGATTTTCCAACACAAGTCATCCCATTAAAGACT	

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/mol_type="unassigned DN/
/db_xref="taxon:9606"
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HSU61145 Human enhancer of zeste homolog 2 (EZH2) mRNA, complete cds. U61145 U6114 U6145 U61145 U6114 U6145 U6114 U614 U6145	1550 CAACCCTGCAGAAAGATACAGCTGAAAAAGGACGGCTCCTCTAACCATGTTTACAACTAT 1649 1550 CAACCCTGTGATCATCCACGGCAGCCTTGTGACAGTTCGTGCCCTTGTGTGATAGCACAA 1620 1610

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Submitted (18-JUN-1996) I.M.P.,
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/product="enhancer of zeste homolog 2"
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/mol_type="mRNA"
/db xref="taxon:9606"
/cell_line="BJA-B"
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 CAACCCTGTGATCATCCACGGCAGCCTTGTGACAGTTCGTGCCCTTGTGTGATAGCACAA 1620
                                                        GCACACTGCAGAAAGATACAGCTGAAAAAAGGACGGCTCCTCTAACCATGTTTTACAACTAT
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STAT6 activating gene.
BD186247
BD186247.1 GI:31878447
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  ISHIZAWA
OS HOMO
PN WO C
PD 05-I
PP 22-N
PR 25-N
PR 25-N
10-OCT-20
PI GOIO
                                                                                                         Honda, G., Matsuda, A., Muramatsu, S. and STAT6 activating gene Patent: WO 02096943-A 116 05-DEC-2002;
                                                                                                                                                                                           Homo sapiens
Homo sapiens
                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                             Patent: WO 02096943-A 116 05-DBC-20
ASAHI KASBI CORP,GOICHI HONDA,AKIO
                                                                                                                                                       Hominidae; Homo.
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GOICHI
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Homo sapiens (human)
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22-MAY-2002 WO 2002JP004949
25-MAY-2001 JP 01P 157043,30-AUG-2001 JP
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GOICHI HONDA,AKIO MATSUDA,SHUJI MURAMATSU,K
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   GATAAAATTTTGGAGGCCATTTCCTCAATGTTTCCAGATAAGGGCACAGCAGAAGAACTA
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/mol_type="genomic DNA"
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Antonarakis, S.E.
Direct Submission
Submitted (13-FEB-1996) S.E. Antonarakis, Division of Medical
Genetics, University of Geneva School of Medicine, Rue
Michel-Servet 1, CH-1211 Geneva, SWITZERLAND
Related protein P42124.
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Chen, H., Rossier, C. and Antonarakis, S.E.
Cloning of a human homolog of the Drosophila enhancer of
(EZH2) that maps to chromosome 21q22.2
Genomics 38 (1), 30-37 (1996)
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                             Expression Profile of ProD208658
DD208658.1 GI:85649860
JP 2005518522-A/95.
Homo sapiens (human)
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae; Homo.
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Rabin,M.A., Chinnalyan,A.M. and Surikumaru,A.

Expression Profile of Prostate Cancer
Patent: JP 2005518522-A 95 23-UUN-2005;
THE REGENTS OF THE UNIVERSITY OF MICHIGAN
OS Homo sapiens
PN JP 2005518522-A/95
PD 23-UUN-2005
PD 23-UUN-2005
PR 02-AUG-2002 JP 2003517245
PR 02-AUG-2001 US 66/309581,15-NOV-2001 US 01-AUG-2002 US 10/210120
PI mark a rabin,aruru m chinnaiyan,arun suriku
FH Key Institution/Qualifiers.
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	CONSRIM	1681 CGCTGCAAAGCACAGTGCAACACCAAGCAGTGCCGTGCTACCTGGCTGTCCGAGAGTGT 1740	음 성
Bouffard, G.G Dickson, M.C. Butterfield,		1621 AATTTTGTGAAAAGTTTTGTCAATGTAGTTCAGAGTGTCAAAACCGCTTTCCGGGATGC 1680 	용 성
Worley,K.C., Villalon,D.K Fahey,J., He		1561 CAACCCTGTGATCATCCACGGCAGCCTTGTGACAGTTCGTGCCCTTGTGTGATAGCACAA 1620 	음 성
Scheetz, T. E. Carninci, P., Carninci, P., Abramson, R.D McKernan, K. J		1501 GCACACTGCAGAAAGATACAGCTGAAAAAGGACGGCTCCTCTAACCATGTTTACAACTAT 1560 	음 성
Altechul, S.F. Hopkins, R.F. Diatchenko, L		1441 CCCGCTGAGGATGTGGATACTCCTCCAAGGAAAAAGAAGAGAAACACCCGGTTGTGGGCT 1500 	음 성
	REFERENCE AUTHORS	1381 AAAACATGTAGACAGGTGTATGAGTTTAGAGTCAAAGAATCTAGCATCATAGCTCCAGCT 1440 	용 성
ž	SOURCE	1321 AGAGTCCTCATTGGCACTTACTATGACAATTTCTGTGCCATTGCTAGGTTAATTGGGACC 1380 	음 성
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ž	RESULT 10 BC010858 LOCUS DEFINITION	1201 AAAGATGAAACTTCGAGCTCCTCTGAAGCAAATTCTCGGTGTCAAACACCAATAAAGATG 1260 	유 성
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1929 TACTGTGGAG	S B 7	841 TTTCATACGCTTTTCTGTAGGCGATGTTTTAAATATGACTGCTTCCTACATCCTTTTCAT 900 	유 성
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TION Homo sapiens enhancer of zeste homolog 2 (Drosophila), transcript variant 1, mRNA (cDNA clone MGC:9169 IMAGE:3901250), complete cds.

TON BC010858

BC010858.2 GI:34194096

DS MGC.

Homo sapiens (human)

Homo sapiens Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutheria; Euarchontoglires; Primates; Catarrhini; Mammalla; Eutheria; Euarchontoglires; Primates; Catarrhini; Memonidae; Homo.

NCE 1 (bases 1 to 2655)

NCE 1 (bases 1 to 2655)

NCE 1 (bases 1 to 2655)

Klausner, R.D., Collins, F.S., Wagner, L., Shemmen, C.M., Schuler, G.D., Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K., Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F., Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L., Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L., Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S., Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S., Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J., Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J., McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S., Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W., Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A., Fahey, J., Helton, B., Ketteman, M., Madan, A., Rodrigues, S., Sanchez, A., Milting, M., Madan, A., Young, A.C., Shevchenko, Y., Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D., Dickson, M.C., Rodriguez, A.C., Grinwood, J., Schmutz, J., Myers, R.M., Schnetz, J., Myers, R.M., Butterfield, Y.S., Krzyvinski, M.I., Skalska, U., Smailus, D.E., Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A. Mammalian Gene Collection Program Team Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences photosect Submission U.S.A. 99 (26), 16899-16903 (2002) RED 12477932

CEZ (bases 1 to 2655)

R.S. Howeld, M. Schein, J. Schein,

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             through the I.M.A.G.E. Consortium/LIML at: http://image.llnl.gov
Series: IRAK Plate: 14 Row: n Column: 6
This clone was selected for full length sequencing because it
passed the following selection criteria: matched mRNA gi: 23510382
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Clone distribution: MGC clone distribution information can be for through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Web site: http://www-shgc.stanford.edu
Contact: (Dickson, Mark) mcd@paxil.stanford.edu
Dickson, M., Schmutz, J., Grimwood, J., Rodriquez, A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cDNA Library Preparation: Life Technologies, Inc. cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Sequencing Group at the Stanford Human Center, Stanford University School of Medicine, Stanford,
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/note="synonyms: ENX-1
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DVAGMGIFIKDPVQKNEFISEYCGEIISQDEADRRGKVYDKYMCSFLFNLANDFVVDA
TRKGNKIRFAAHSVNPNCYAKVMVNGDHRIGIFAKRAIQTGEELFFDYRYSQADALK
YVGIEREMEIP"
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National Institute of Genetics of Japan, Mishima, Japan.
distribution: clone distribution information can be found
http://www.nih.go.jp/yoken/genebank/
Lab host: TOP10 -- '-- Nannagaga'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Direct Submission
Submitted (10-MAY-2004) Katsuyuki Hashimoto, Mational Institute of Infectious Diseases, Division of Genetic Resources; 23-1, Toyama 1-chome, Shinjuku-ku, Tokyo, 162-8640, Japan
1-chome, Shinjuku-ku, Tokyo, 162-8640, Japan
1-chome, Shinjuku-ku, Tokyo, 162-8640, Japan
1-chome, Shinjuku-ku, Tokyo, 162-8640, Japan
1-chome, Shinjuku-ku, Tokyo, Japan
1-chome, Shinjuku-ku, Tokyo, Fax:81-3-5285-1181)
Tel:81-3-5285-1111(ex.2120), Fax:81-3-5285-1181)
The International consortium for macaque cDNA sequencing and analysis consists of:Department of Virology and Human Genome Center, Institute of Medical Science, The University of Tokyo, Japan; Division of Genetic Resources, National Institute of Infectious Diseases of Japan, Tokyo, Japan; National Health Research Institute, Taipei, Taiwan; Institute of Molecular Biology, Academia Sinica, Taipei, Taiwan; Department of Ecology & Evolution,
                                                                                                                                                                                                                                                                                                                                                                                                                                Description: 1st strand cDNA was primed with an oligo(dT) primer [ATGTGGCCTTTTTTTTTTTT]; double-stranded cDNA was synthesized using specific 5' and 3' primers and amplified by PCR. The PCR product was digested with Sfil and size selection was performed to exclude fragments <1.5kb.The Sfil-digested PCR product was cloned into distinct DraIII sites of pME185-FL3. XhOI sites just outside the DraIII sites can be used to isolate the cDNA insert. Libraries were constructed by oligo-capping method. Libraries were made from:

QCCB: cerebellum cortex
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Oligo capping; fis (full insert &
Macaca fascicularis (crab-eating
Macaca fascicularis
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                                                                                                                                               sequencing was done
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Hashimoto, K., Kusuda, J. and Sugano, S.
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Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
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/organism="Macaca fascicularis"
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//db_xref="G1:67972188"

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RVASVPIMYSWSPLQQNFMVZDETVLHNIPYMGDEVLDQDTFIEELIKNYDGKVHGD
RECGFINDEIFYMELVNALGQYNDDDDDDDDDDDEDPEREEKOKDLEDHRDDKESRFPRKF
PSDKIFEALISMFPDKGTAEELKEXYKELTEQQLPGALPPECTPNIDGPNAKSVQREQ
SLHSFHTLFCRRCFKYDCFLHPFHATTPNAYKRKTTETALDNKPCGSPCYOHLEGAKEF
PSDKIFEALISKMFPDKGTAEELKEXYKELTEQQLPGALPPECTPNIDGPNAKSVQREQ
SLHSFHTLFCRRCFKYDCFLHPFHATTPNAYKRKTETALDNKPCGSPCYOHLEGAKEF
PAALTAERIKTPPKRPGGRRRGELPNNSSRPSTFTINLEKSKDTDSDREAGTSTGGEN
NDEEEEKKDETSSSSEANSRCQTFIKMKPNISPERSGAEASMFRALIGTTYYDN
FCALARLIGTKYCRQYVEFTVERSSILAFAPABDYDTPPRXKKKHRLMAAHCTRKIOL
KKDGSSNHYNNYQPCDHPRQPCDSSCPCVIAQNFCEKFCQCSSECQNRFPGCRCKAQC
NTKQCPCYLAVRECDPDLCLTCGAADHNDSKNVSCKNCSTLORGSKKHLLLAPSDVAGW
GIFIKDPVQKNEFISSYCGEIISQDEADRRGKYDKKNSCKNCSTLORGSKKHLLLAPSDVAGW
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Full-length cDNA sequences
Patent: EP 1308459-A 1192 07-MAY-2003;
Patent Research Institute (JP); Research
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/mol_type="mRNA"
/db_xref="taxon:9606"
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Butheria; Euarchontoglires; Primates; Catarrhini;
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REFERENCE AUTHORS SOURCE ORGANISM ACCESSION VERSION KEYWORDS LOCUS DEFINITION Homo sapiens (human) Homo sapiens Eukaryota; Metazoa; C Mammalia; Eutheria; E to ENHANC AK092676 AK092676

Homo sapiens cDNA FLJ35357 fis;
to ENHANCER OF ZESTE HOMOLOG 2. AK092676.1 GI:21751325 oligo capping; fis (full insert Hominidae; Homo. Chordata; Craniata; Vertebrata; Euteleostomi; Euarchontoglires; Primates; Catarrhini; clone sequence) mRNA linear one PUAEN2000312,

RESULT 14 AK092676

PRI 20-JAN-2006 highly similar

Ota, T., Suzuki, Y., Nishikawa, T., Otsuki, T., Sugiyama, T., Irie, R., Wakamateu, A., Hayashi, K., Sato, H., Nagai, K., Kimura, K., Makita, H., Sekine, M., Obayashi, M., Nishi, T., Shibahara, T., Tanaka, T., Ishii, S., Yamamoto, J., Saito, K., Kawai, Y., Isono, Y., Nakamura, Y., Ishii, S., Yamamoto, J., Saito, K., Kawai, Y., Isono, Y., Nakamura, Y., Nagahari, K., Murakami, K., Yasuda, T., Iwayanagi, T., Wagatsuma, M., Shiratori, A., Sudo, H., Hosoiri, T., Kaku, Y., Kodaira, H., Kondo, H., Sugawara, M., Takahashi, M., Kanda, K., Yokoi, T., Furuya, T., Kikawa, B., Omura, Y., Abe, K., Kamihara, K., Katsuta, N., Sato, K., Kikawa, B., Omaza, Y., Abe, K., Kamihara, K., Katsuta, N., Sato, K., Tanikawa, M., Yamazaki, M., Ninomiya, K., Ishibashi, T., Yamashita, H., Murakawa, K., Fujimori, K., Tanai, H., Kimata, M., Watanabe, M., Hiraoka, S., Chiba, Y., Ishida, S., Ono, Y., Takiguchi, S., Watanabe, M., Yosida, W., Hotuta, T., Kusano, J., Kamehori, K., Takahashi-Puji, A., Hara, R., Tanase, T.O., Nomura, Y., Togiya, S., Komai, F., Hara, R., Sasaki, N., Astita, M., Imose, N., Musashino, K., Yuuki, H., Oshima, A., Sasaki, N., Astoka, S., Moriya, S., Momiyama, H., Satoh, N., Takami, S., Terashima, Y., Suzuki, O., Nakagawa, S., Senoh, A., Mizoguchi, H., Goto, Y., Shinhizu, F., Wakebe, H., Hishigaki, H., Watanabe, T.,

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (04-JUL-2002) Takao Isogai, Helix Research Institute, Genomics Laboratory; 1532-3 Yana, Kisarazu, Chiba 292-0812, Japan (B-mail:flj-cdna@nifty.com, Tel:81-438-52-3975, Fax:81-438-52-3986) NEDO human cDNA sequencing project supported by Ministry of Economy, Trade and Industry of Japan; cDNA full insert sequencing: Research Association for Biotechnology (RAB); cDNA library construction: Helix Research institute (HRI) (supported by Japan Key Technology Center etc.); 5'-& 3'-end one pass sequencing: RAB, HRI, and Biotechnology Center, National Institute of Technology and Evaluation; clone selection for full insert sequencing: HRI and
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/clone lib="PUAEN2"
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Institute, Laboratory for Genome Informatics; 2-6-7
Kazusa-kamatari, Kisarazu, Chiba, 292-0818, Japan
(B-mail:mouse@kazusa.or.jp, Tel:81-438-52-3919, Fax:81-438-52-3918)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Okazaki,N., Kikuno,R.F., Ohara,R., Inamoto,S., Koseki,H., Hiraoka,S., Saga,Y., Nagase,T., Ohara,O. and Koga,H. Prediction of the Coding Sequences of Mouse Homologues of KIAA Gene. The Complete Nucleotide Sequences of Mouse KIAA-homologous CDNAs Identified by Screening of Terminal sequences of cDNA Clones Randomly Sampled from Size-Fractionated Libraries. Published Only in Database (2005)
2 (bases 1 to 2600)
Okazaki,N., F.Kikuno,R., Nagase,T., Ohara,O. and Koga,H. Direct Submission
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                        AAACAGCGAAGGATACAGCCTGTGCACATCCTGACTTCTGTGAGCTCATTGCGCGGGACT
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DHNDSKNVSCKNCSIQRGSKKHLLAPSDVAGNGIFIKDPAGNGKEFISSYCGEIISQD
DHNDSKNVSCKNCSIGRGSKKHLLAPSDVAGNGIFIKDRAVGNUED
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/note="vector:modified r
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details recorded"
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1801 TGCAAGAACTGCAGTATTCAGCGGGGCTCCAAAAAGCGTCTATTGCTGGCACC	Ş
1840 GACCCTGACCTCTGTCTCACGTGTGGAGCTGCTGACCATTGGGACAGTAAAAATGTATCC	Дb
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1720 AATTTTTGTGAAAAGTTTTGTCAATGTAGTTCAGAGTGTCAAAACCGCTTTCCTGGATGT	문
1621 AATTTTTGTGAAAAGTTTTGTCAATGTAGTTCAGAGTGTCAAAAACCGCTTTCC	Ş
1660 CAACCCTGTGACCATCCACGGCAGCCTTGTGACAGTTCGTGGCCCTTGTGTGATAGCACAA	Db
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Search completed: August 13, 2006, 14:49:58 Job time : 12874 secs

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Copyright (c) 1993 - 2006 Biocceleration Ltd.

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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Himan	Human		Description

ALIGNMENTS

RESULT 1 AAT43624 Homo sapiens. Chromatin regulator protein EZH2. 25-MAR-2003 05-MAY-1997 AAT43624; AAT43624 standard; DNA; 2600 (revised)
(first entry) ВP

Chromating; regulator; EZH1; EZH2; SUV39H; SET domain; gene therapy; cancer; ss.

CDS 02-MAY-1996; 14-NOV-1996. WO9635784-A2 96WO-EP001818. Location/Qualifiers 90. .2330 /*tag= a

Jenuwein T, (BOEH) BOEHRINGER INGELHEIM INT GMBH: Laible G;

10-MAY-1995;

95DE-01016776

WPI; 1996-518672/51. P-PSDB; AAW05260.

New DNA encoding chromatin regulator protein with SET domain - related vectors, transformed cells, proteins and antibodies, for diagnosis and treatment of cancer. for

Claim 1; Fig 6; 38pp; German.

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Query Match
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                                                  TGCAAGAACTGCAGTATTCAGCGGGGCTCCAAAAAGCATCTATTGCTGGCACCATCTGAC
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                 TACTGTGGAGAGATTATTTCTCAAGATGAAGCTGACAGAAGAGGGGAAAGTGTATGATAAA
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05-JUN-2000;
18-SEP-2000;
18-SEP-2000;
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stomach; lung; prostate; pancreas; carcinoma; antitumour; cancerous;
cytostatic; gene therapy; antineoplastic; Wilm's tumour; adenocarcinoma;
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2000US-0234009P.
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Screening for agent to be te in expression
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01-NOV-2000;
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Soppet
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                                                                                                                                                                          for anti-neoplastic agent involves exposing be tested for anti-neoplastic activity, and c sion of a gene of a signature gene set.
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The present invention describes a method (M1) for screening for an antiCC neoplastic agent. The method involves exposing cells to a chemical agent
CC to be tested for anti-neoplastic activity, determining a change in
CC expression of at least one gene (I) of a signature gene set, where (I)
CC comprises a sequence (S) selected from 8447 sequences (given in ABL61664
CC to ABL70110), or is at least 95% identical to (S), where a change in
CC expression is indicative of anti-neoplastic activity. (I) has cytostatic
CC activity and can be used in gene therapy. M1 can be used for screening an
CC anti-neoplastic agent, and can be used for producing a product which is
CC the data collected with respect to the anti-neoplastic agent as a result
CC of M1, and the data is sufficient to convey the chemical structure and/or
CC properties of the agent. M1 can be used in the treatment of cancer such
CC as colon, breast, stomach, lung, thyroid, oesophageal, ovarian, kidney,
CC prostate or pancreatic cancer, adenocarcinoma, carcinoma, clear cell
CC cancer, infiltrating ductal cancer, infiltrating lobular cancer, squamous
CC cell carcinoma, neuroendocrine carcinoma, papillary carcinoma and Wilm's

Sequence 2600 BP; 818 Ą 525 Ç 630 G; 627 Ŧ, 0 Ų, 0 Other;

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Query Match Best Local S Matches 2241

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Score 2241; Pred. No. 0; 0; Mismatches

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                                                   ARAGATGARACTTCGAGCTCCTCTGAAGCAAATTCTCGGTGTCARACACCAATRAAGATG
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ADT90243 standard; DNA;

13-JAN-2005 (first entry)

Human gene over-expressed in a cancerous cell, SEQ IJ

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AC ADT9
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cancer; detection; cytostatic; gene th therapy; gene; ds. pre-cancerous; antineoplastic; cancer therapy;

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CC The invention relates to a novel method for diagnosing cancer in a canonical mammal. The method comprises determining amplification of specific genes, cc given in the specification, in the genome of a mammal. The invention cc further comprises methods for: diagnosing cancer or a pre-cancerous condition in a mammal; inhibiting cancer or a pre-cancerous condition in cc a mammalian cell; identifying an agent having therapeutic activity in a chuman patient; identifying an anti-neoplastic agent; determining the cancerous status of a cell; identifying a compound as an anti-neoplastic carerous status of a cell; identifying a compound as an anti-neoplastic capent; treating cancer; monitoring the progress of cancer therapy in a patient; determining the likelihood of success of cancer therapy in a compound; and determining the progress of a treatment for cancer in a patient following commencement of a cancer treatment on the patient. The methods and compositions of the invention have cytostatic activity and may be used in gene therapy. The method is useful in diagnosing or treating cancer in a mammal. This polynucleotide sequence represents a conference method of the invention have cytostatic activity and may be used in a mammal. This polynucleotide sequence represents a conference over-expressed in a cancerous cell, used in the novel cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Simi
Matches 2241;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 2600 BP; 818 A; 525 C; 630 G; 627 T; 0 U;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15-APR-2003; 2003US-0462895P
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                                                                                                                                  therapy; gene;
                                                                                                                                             pre-cancerous; antineoplastic; cancer therapy;
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The invention relates to a novel method for diagnosing cancer in a cammmal. The method comprises determining amplification of specific genes, cc given in the specification, in the genome of a mammal. The invention cc further comprises methods for: diagnosing cancer or a pre-cancerous condition in a mammal; inhibiting cancer or a pre-cancerous condition in a mammal; inhibiting cancer or a pre-cancerous condition in cc a mammal an cell; identifying an agent having therapeutic activity in a cc mammal patient; identifying an agent having therapeutic activity in a cc gent; treating cancer; monitoring the progress of cancer therapy in a cc patient; determining the likelihood of success of cancer therapy in a cc patient; determining the likelihood of success of cancer therapy in a cc patient; determining the likelihood of success of cancer therapy in a cc patient; determining the likelihood of success of cancer therapy in a cc patient; determining the likelihood of success of cancer therapy in a cc patient; determining the likelihood of success of cancer therapy in a cc patient; determining the likelihood of success of cancer therapy in a cc patient; determining the likelihood of success of cancer therapy in a cc a compound; and determining the progress of a treatment for cancer in a patient.

CC a patient following commencement of a cancer treatment on the patient.

CC and may be used in gene therapy. The method is useful in diagnosing or treating cancer in a mammal. This polymucleotide sequence represents a cc gene over-expressed in a cancerous cell, used in the novel cancer concertion in the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 3; SEQ ID NO 88; 92pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Diagnosing cancer in a mammal comprises determining amplification specific genes, e.g., serine/threonine kinase 6, in the genome of
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Sequence 2600 BP; 818 A; 525 C; 630 G; 627 T; 0 U; 0 Other;

S Ś S 밁 δ 밁 S 片 Ś 片 S 片 Ś 밁 밁 닭 S Query Match Best Local Simi Matches 2241; 330 270 481 510 450 361 390 301 241 181 210 121 150 421 61 90 μ Similarity ATGGTGGAAGATGAAACTGTTTTACATAACATTCCTTATATGGGAGATGAAGTTTTAGAT AAACAGCGAAGGATACAGCCTGTGCACATCCTGACTTCTGTGAGCTCATTGCGCGGGACT ATGTTTAGTTCCAATCGTCAGAAAATTTTTGGAAAGAACGGAAATCTTAAACCAAGAATGG ATGGGCCAGACTGGGAAGAATCTGAGAAGGGACCAGTTTGTTGGCGGAAGCGTGTAAAA AGAGAATGIGGGITTATAAATGAIGAAATTTTTTGIGGAGITGGIGAATGCCCTTGGTCAA 540 CAGGATGGTACTTTCATTGAAGAACTAATAAAAAATTATGATGGGAAAGTACACGGGGAT CTGAATGCAGTTGCTTCAGTACCCATAATGTATTCTTGGTCTCCCCTACAGCAGAATTTT CTGAATGCAGTTGCTTCAGTACCCATAATGTATTCTTGGTCTCCCCTACAGCAGAATTTT AGGGAGTGTTCGGTGACCAGTGACTTGGATTTTCCAACACAAGTCATCCCATTAAAGACT AGGGAGTGTTCGGTGACCAGTGACTTGGATTTTCCAACACAAGTCATCCCATTAAAGACT AAACAGCGAAGGATACAGCCTGTGCACATCCTGACTTCTGTGAGCTCATTGCGCGGGACT ATGTTTAGTTCCAATCGTCAGAAAATTTTTGGAAAGAACGGAAATCTTAAACCAAGAATGG TCAGAGTACATGCGACTGAGACAGCTCAAGAGGTTCAGACGAGCTGATGAAGTAAAGAGT TCAGAGTACATGCGACTGAGACAGCTCAAGAGGTTCAGACGAGCTGATGAAGTAAAGAGT ATGGGCCAGACTGGGAAGAATCTGAGAAGGGACCAGTTTGTTGGCGGAAGCGTGTAAAA 100.0%; ilarity 100.0%; Conservative 0; ٥, Score 2241; Pred. No. 0; Mismatches B 13; 0 Indels Length 2600; 0 Gaps 149 60 569 480 509 420 449 360 389 300 329 240 269 180 209 120 0

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                                                                                                      cancer; detection; pre-cancerous; antineoplastic;
cytostatic; gene therapy; gene; ds.
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WPI; 2004-784489/77
             Strovel JW,
                                                  15-APR-2004; 2004WO-US009289
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Claim 3; SEQ ID NO 207; 92pp; English.
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The invention relates to a novel method for diagnosing cancer in a CC mammal. The method comprises determining amplification of specific genes, CC given in the specification, in the genome of a mammal. The invention CC further comprises methods for: diagnosing cancer or a pre-cancerous CC condition in a mammal, inhibiting cancer or a pre-cancerous condition in a mammal interitying an agent having thereputic activity in a CC human patient; identifying an anti-neoplastic agent; determining the CC cancerous status of a cell; identifying a compound as an anti-neoplastic cagent; treating cancer; monitoring the progress of cancer therapy in a CC patient; determining the likelihood of success of cancer therapy in a CC patient; producing test data with respect to the anti-neoplastic activity of a compound; and determining the progress of a treatment for cancer in CC a patient following commencement of a cancer treatment to the patient. CC The methods and compositions of the invention have cytostatic activity and may be used in gene therapy. The method is useful in diagnosing or treating cancer in a mammal. This polynucleotide sequence represents a CC gene over-expressed in a cancerous cell, used in the novel cancer used to the invention.

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Sequence 2600 BP; 818 A; 525 C; 630 G; 627 T; 0 U; 0 Other;

Query Match 100.0%; S Best Local Similarity 100.0%; F Matches 2241; Conservative 0;

Score 2241; Pred. No. 0; 0; Mismatches

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0	421 CAGGATGGTACTTTCATTGAAGAACTAATAAAAATTATGATGGGAAAGTACACGGGGAT 480	,	
w	450 ATGGTGGAAGATGAAACTGTTTTACATAACATTCCTTATATGGGAGATGAAGTTTTAGAT 509		
0	361 ATGGTGGAAGATGAAACTGTTTTACATAACATTCCTTATATGGGAGATGAAGTTTTAGAT 420	•	
v	390 CTGAATGCAGTTGCTTCAGTACCCATAATGTATTCTTGGTCTCCCCTACAGCAGAATTTT 449		
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0	241 AGGGAGTGTTCGGTGACCAGTGACTTGGATTTTCCAACACAAGTCATCCCATTAAAGACT 300	,	
v	270 AAACAGCGAAGGATACAGCCTGTGCACATCCTGACTTCTGTGAGCTCATTGCGCGGGGACT 329		
0	181 AAACAGCGAAGGATACAGCCTGTGCACATCCTGACTTCTGTGAGCTCATTGCGCGGGACT 240		
v	210 ATGTTTAGTTCCAATCGTCAGAAAATTTTGGAAAGAACGGAAATCTTAAACCAAGAATGG 269		
0	121 ATGTTTAGTTCCAATCGTCAGAAAATTTTTGGAAAGAACGGAAATCTTAAACCAAGAATGG 180		
•	150 TCAGAGTACATGCGACTGAGACAGCTCAAGAGGTTCAGACGAGCTGAATGAA	-	
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o	01 GCAACACCCAACACTTATAAGCGGAAGAACACAGAAACAGCTCTAGACAACAAACCTTGT	3 8
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840	1 ACCCCCAACATAGATGGACCAAATGCTAAATCTGTTCAGAGAGAG	S
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720	61 GATAAAATTTTTGAAGCCATTTCCTCAATGTTTCCAGATAAGGGCACAGCAGAAGAACTA	. S
749	690 AAAGATCTGGAGGATCACCGAGATGATAAAGAAAGCCGCCCACCTCGGAAATTTCCTTCT	DЬ

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cytostatic; gene therapy; gene; ds.
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The invention relates to a novel method for diagnosing cancer in a CC mammal. The method comprises determining amplification of specific genes, CC given in the specification, in the genome of a mammal. The invention CC further comprises methods for: diagnosing cancer or a pre-cancerous condition in a mammal, inhibiting cancer or a pre-cancerous condition in a mammal, inhibiting cancer or a pre-cancerous condition in CC a mammalian cell; identifying an agent having therapeutic activity in a CC human patient; identifying an anti-neoplastic agent; determining the CC cancerous status of a cell; identifying a compound as an anti-neoplastic CC agent; treating cancer; monitoring the progress of cancer therapy in a CC patient; determining the likelihood of success of cancer therapy in a CC patient; producing test data with respect to the anti-neoplastic activity of a compound; and determining the progress of a treatment for cancer in CC a patient following commencement of a cancer treatment for cancer in a patient following commencement of a cancer treatment on the patient. CC The methods and compositions of the invention have cytostatic activity and may be used in gene therapy. The method is useful in diagnosing or treating cancer in a mammal. This polynucleotide sequence represents a CC gene over-expressed in a cancerous cell, used in the novel cancer of the invention.
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Sequence 2600 BP; 818 A; 525 C; 630 G; 627

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Matches 2241; Conservative 630 541 570 481 510 450 361 390 301 330 241 270 181 210 421 121 150 61 90 -ATGGGCCAGACTGGGAAGAATCTGAGAAGGGGACCAGTTTGTTGGCGGAAGCGTGTAAAA AGAGAATGTGGGTTTATAAATGATGAAATTTTTTGTGGAGTTGGTGAATGCCCTTGGTCAA AGAGAATGTGGGTTTATAAATGATGAAATTTTTGTGGAGTTGGTGAATGCCCTTGGTCAA CAGGATGGTACTTTCATTGAAGAACTAATAAAAATTATGATGGGAAAGTACACGGGGAT CAGGATGGTACTTTCATTGAAGAACTAATAAAAAATTATGATGGGAAAGTACACGGGGAT ATGGTGGAAGATGAAACTGTTTTACATAACATTCCTTATATGGGAGATGAAGTTTTAGAT ATGGTGGAAGATGAAACTGTTTTACATAACATTCCTTATATGGGAGATGAAGTTTTAGAT ACGGAGTGTTCCGGTGACCAGTGACTTGGATTTTCCAACACAGAGTCATCCCATTAAAGACT AAACAGCGAAGGATACAGCCTGTGCACATCCTGACTTCTGTGAGCTCATTGCGCGGGGACT AAACAGCGAAGGATACAGCCTGTGCACATCCTGACTTCTGTGAGCTCATTGCGCGGGACT ATGTTTAGTTCCAATCGTCAGAAAATTTTTGGAAAGACGGAAATCTTAAACCAAGAATGG ATGTTTAGTTCCAATCGTCAGAAAATTTTGGAAAGAACGGAAATCTTAAACCAAGAATGG TCAGAGTACATGCGACTGAGACAGCTCAAGAGGTTCAGACGAGCTGATGAAGTAGAAGAGT ATGGGCCAGACTGGGAAGAAATCTGAGAAGGGACCAGTTTGTTGGCGGAAGCGTGTAAAA AGGGAGTGTTCGGTGACCAGTGACTTGGATTTTCCAACACAAGTCATCCCATTAAAGACT %; Score 2241; |
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ADQ22638 standard; DNA;

26-AUG-2004 ADQ22638; (first entry) 2711 ВP

Boft tissue sarcoma-upregulated DNA -SEQ Ħ 5458

tissue sarcoma; cytostatic; gene therapy; vaccine; screening;

Homo sapiens

WO2004048938-A2

10-JUN-2004.

26-NOV-2003; 2003WO-US038193

26-NOV-2002; 2002US-0429739P

(PROT-) PROTEIN DESIGN LABS

2004-441208/41

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Ginsburg

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Zlotnik

Early detection of soft tissue sarcoma comprises determining expression of a gene in a first soft tissue sample and a normal soft tissue sample and comparing the gene expression, also useful in treating soft tissue

Example 2 SEQ ü ŏ 5458; 210pp; English.

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The invention relates to a novel method for detecting soft tissue sarcoma which comprises obtaining a first soft tissue sample from an individual and a normal soft tissue sample from the same or different individual, determining the expression of a gene in both samples and comparing the

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           expression of the gene in both soft tissue samples, where a higher level of protein expression in the first soft tissue sample indicates the presence of soft tissue sarcoma. The method of the invention has cytostatic applications and may be useful for detecting soft tissue sarcoma, possibly via gene therapy or vaccine production. The nucleic acid sequences may be useful in diagnostic and screening applications. The current sequence is that of a human soft tissue sarcoma-upregulated DNA of the invention. The current sequence is not shown within the specification per se but was submitted in CD format by the inventor.
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30-AUG-2001;
10-OCT-2001;
The invention relates to 242 human STAT6-activating proteins and cDN encoding them (ADG10411-ADG10894) and to sequences with 95% or more homology to the STAT6-activating proteins and their encoding nucleic acids. The invention also relates to recombinant vectors and host or comprising a STAT6-activating protein-encoding nucleic acid; the recombinant production of a STAT6-activating protein; an antibody specific for a STAT6-activating protein; antisense oligonucleotides
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                                                                                                                                                                                                                               STAT6-activating proteins and encoded genes, applicable in diagand developing drugs to treat allergic diseases, inflammations, autoimmune diseases, diabetes, hyperlipidemia, infections e.g.
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Lung 02-APR-2003 cancer-associated (first ent polynucleotide ã #54.

ABX76182;

Lung cancer-associated polynucleotide; gene; ds; cytostatic; emphysema; antiinflammatoxy; antiasthmatic; non-small cell lung cancer; atelectasis; small cell lung cancer; benign lesion; precancerous lesion; bronchitis; chronic obstructive pulmonary disease; hypersensitivity pneumonitis; interstitial pulmonary fibrosis; fibrdsis; asthma; bronchiectasis.

31-OCT-2002 Unidentified. WO200286443-A2

RESULT 9
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Aziz ž 2003-093161/08 ABU56461. Murray ₽,

Detecting a lung cancer-associated transcript in a cell from for treating lung cancer, by contacting a biological sample; patient with a polynucleotide that exhibits increased or deci expression in lung cancer. m a patient from the

Claim 22; Page 231-232; 453pp; English

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The invention relates to a method for detecting a lung cancer-associated transcript in a cell from a patient, comprising contacting a biological sample from the patient with a polynucleotide that selectively hybridises to a sequence that is at least 80 % identical to a gene that exhibits

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                                                                        GACCCTGACCTCTGTCTTACTTGTGGAGCCGCTGACCATTGGGACAGTAAAAATGTGTCC
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The invention relates to an inhibitory RNA (RNAi) molecule derived from a nucleic acid molecule comprising a defined nucleic acid sequences given in the specification or a sequence which hybridizes to the sequences and encodes a Notch signaling target gene or which is a degenerate as a result of the genetic code of the sequences. The methods and compositions of the present invention are useful for manipulating the phenotype of stem cells, preferably pluripotent stem cells. This sequence corresponds to one of the nucleic acid molecules of the invention.
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23-UUL-2002;
23-UUL-2002;
24-UUL-2002;
25-UUL-2002;
26-UUL-2002;
                                                                                           Determining the presence or absence of a pathological cell in a useful for diagnosing, prognosing or treating cancer, comprises a nucleic acid in a biological sample.
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P-PSDB; ADN39392.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CC The invention relates to nucleic acids and proteins (ADN38683-ADN40064) whose expression is upregulated or downregulated in specific cancers or cc other diseases such as angiogenic or fibrotic disorders, and to methods of determining the presence or absence of a pathological cell in a cc patient by detecting a nucleic acid at least 80% identical to those of the invention or by detecting a polypeptide of the invention. The crimention also relates to expression vectors and host cells comprising a nucleic acid of the invention; antibodies which specifically bind a cc nucleic acid of the invention; use of such antibodies for drug targeting; and methods of screening for modulators of activity or expression of the polypeptides and methods are useful for diagnosing, prognosing and treating cander and other conditions such as psoriasis, ischaemia, heart disease, attherosclerosis, inflammatory diseases, autoimmune diseases, retinal neovascularistation syndromes, scarring and uterine fibroids. They may calso be useful in wound healing and in contraception. The present of the invention.
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The invention relates to a method of classifying a breast cancer patient according to prognosis by determining the similarity between the level of expression of each of five genes for which markers are listed in the specification, in a cell sample taken from the breast cancer patient, to control levels of expression for each respective five genes to obtain a patient similarity value. The methods are useful for classifying a breast cancer patient according to prognosis. Kits and computer program products
                                                                                                   Classifying a breast cancer patient according to prognosis determining the similarity between the level of expression five genes in a cell sample taken from patient, to control
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This invention relates to a novel human diaphanous-3 (DIAPH3) protein and CC of DIAPH3 cDNA in the prognosis of breast cancer, such that the DIAPH3 CC protein can be used as a target for anti-cancer drugs or for the CC identification of molecules with anti-cancer drugs or for the CC invention provides antibodies that specifically bind to the DIAPH3 CC protein, as well as methods to identify an agent that modulates the DIAPH3 to a binding partner. In particular it describes CC measuring the expression level of DIAPH3 using hybridization oligos and CC comparing this with a control expression level, where a raised expression CC level indicates a poor prognosis with respect to breast cancer. As such, CC it also provides small interfering RNA oligos that can hybridize to the CC DIAPH3 gene and inhibit expression thereof. The peptide and nucleic acid Sequences of this invention are useful as markers to differentiate cancer and are useful as targets for screening assays designed to clean tify inhibitors or modulators of DIAPH3 activity, which in turn are useful as targets for screening assays designed to therapy and exhibit cytostatic activity. This polymucleotide sequence is a human gene marker that when expression is upregulated in a patient
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screening; gene therapy; cytostatic.
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⋗	01 GCAACACCCCAACACTTATAAGCGGAAGAACACAGAAACAGCTCTAGACAACCATGT 5	841 TTTCATACGCTTTTCTGTAGGCGATGTTTTAAATATGACTGCTTCCTACATCCTTTTCAT 900	781 ACCCCCAACATAGATGGACCAAATGCTAAATCTGTTCAGAGAGAG	721 AAGGAAAATATAAAGAACTCACCGAACAGCAGCTCCCAGGCGCACTTCCTCCTGAATGT 780	661 GATAAAATTTTTGAAGCCATTTCCTCAATGTTTCCAGATAAGGGCACAGCAGAAGAACTA 720 	601 AAAGATCTGGAGGATCACCGAGATGATAAAGAAAGCCGCCCACCTCGGAAATTTCCTTCT 660 	541 TATAATGATGATGATGATGATGATGAGAGAGAGAGAAAAAA	481 AGAGAATGTGGGTTTATAAATGATGAAATTTTTGTGGAGTTGGTGAATGCCCCTTGGTCAA 540 	421 CAGGATGGTACTTTCATTGAAGAACTAATAAAAAATTATGATGGGAAAGTACACGGGGAT 480 	361 ATGGTGGAAGATGAAACTGTTTTACATAACATTCCTTATATGGGAGATGAAGTTTTAGAT 420 	301 CTGAATGCAGTTCCTTCAGTACCCATAATGTATTCTTGGTCTCCCCTACAGCAGAATTTT 360	241 AGGGAGTGITCGGTGACCAGTGACTTGGATTITCCAACAAGTCATCCCATTAAAGACT 300	181 AAACAGCGAAGGATACAGCCTGTGCACATCCTGACTTCTGTGAGCTCATTGCGCGGGACT 240	121 ATGTTTAGTTCCAATCGTCAGAAAATTTTGGAAAGAACGGAAATCTTAAACCAAGAATGG 180 	61 TCAGAGTACATGCGACTGAGACAGCTCAAGAGGTTCAGACGAGCTGATGAAGTAAAGAGT 120	1 ATGGGCAGACTGGGAAGAATCTGAGAAGGGACCAGTTTGTTGGCGGAAGCGTGTAAAA 60 	99.8%; Score 2236.2; Similarity 99.9%; Pred. No. 0; B; Conservative 0; Mismatches	sample it is correlated with a poor prognosis for breast cancer, given in an exemplification of the invention. Sequence 2576 BP; 826 A; 513 C; 612 G; 625 T; 0 U; 0 Other;	
ð	용 동	D t	S B :	왕 분 :	Q D	S B 7	용 분 :	S B 7	Q B \$	Q	₹ ₽ !	왕 문 :	9 B \$	S B 7	S B :	S B 7	S B 8	g Qy	
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15-NOV-2001;
01-AUG-2002;
                                                       This invention relates to a novel method of characterising prostate tissue in a subject and to compositions and methods for cancer diagnostics, including cancer markers, in particular prostate cancer. Prostate cancer (PCA) is a leading cause of male cancer-related death. Additional serum and tissue biomarkers would aid diagnosis. The invention may provide means of producing compounds with a cytostatic activity or allow the development of gene therapy. The methods of the invention useful for characterising prostate tissue in a subject, screening compounds, characterising inconclusive prostate biopsy tissue in a subject, detecting AMACR (alpha-methylacyl-coenzyme A racemase) expression in a bodily fluid, characterising tissue in a subject, detecting a subject and inhibiting the growth of cells. The present sequence is a DNA sequence which is preferably utilised in the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                Characterizing prostate tissue sample from a subject and detect of hepsin, pim-1 or EZH2.
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                   The invention relates to an agent for the prophylaxis and therapy of cancer comporising a compound which inhibits the activity or expression of Numan EZH2 (enhancer of zeste homologue 2), resulting in apoptosis. The CC EZH2 inhibitors include anti-EZH2 antibodies and EZH2 antisense nucleic coids. The invention also relates to a kit for screening for inhibitors of EZH2 activity or expression. EZH2 is a component of a complex with histone methyltransferase activity which methylates histone H3 on lysine cresidues at position 9 and/or 27. It has been found to be deregulated in cc various tumours, and acts as a mediator of tumorigenesis, being able to reverse repression of cyclin A which in turn mediates cell cycle advancement. The agent of the invention can be used for preventing, treating and diagnosing cancers such as colorectal cancer, breast cancer, lung cancer, pancreatic cancer and ovarian cancer, and can also be used in drug screening. The agent of the invention is safe and less toxic than prior art cancer prophylactic/therapeutic agents. The present sequence represents a DNA encoding human EZH2 which was used in an example of the invention.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 3; SEQ ID NO 3; 102pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel prophylactic and therapeutic agent of its salt that inhibits activity of enhancer protein, useful for treating cancer such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24-DEC-2002; 2002JP-00373144
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ALIGNMENTS

PUBMED REFERENCE AUTHORS	JOURNAL	TITLE			AUTHORS	REFERENCE	JOURNAL		TITLE	AUTHORS	REFERENCE	PUBMED	JOURNAL	TITLE	AUTHORS	REFERENCE			ORGANISM	SOURCE	KEYWORDS	VERSION	COECOTON	DEFINITION	Locus	RESULT 1 AK157853
11076861 Awai,J., Shinagawa,A., Shibata,K., Yoshino,M., Itoh,M., Ishii,Y., Kawai,J., Shinagawa,A., Fukunishi,Y., Konno,H., Adachi,J., Fukuda,S., Arakawa,T., Hara,A., Pukunishi,Y., Konno,H., Kondo,S., Yamanaka,I., Alzawa,K., Izawa,M., Nishi,K., Kiyosawa,H., Kondo,S., Yamanaka,I.,	<pre>sequencing pipeline with 384 multicapillary sequencer Genome Res. 10 (11), 1757-1771 (2000)</pre>	Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and Hayashizaki,Y. RIKEN integrated sequence analysis (RISA) system384-format	Yanamoto,R., Matsumoto,H., Sakaguchi,S., Ikegami,T., Kashiwagi,K., Fujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E., Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura,S., Kawai,J.,	Konno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A.,	Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P.,	3	Genome Res. 10 (10), 1617-1630 (2000)	prepare full-length cDNA libraries for rapid discovery of new genes	Normalization and subtraction of cap-trapper-selected cDNAs to	Carninci, P., Shibata, Y., Hayatsu, N., Sugahara, Y., Shibata, K.,	N	10349636	Meth. Enzymol. 303, 19-44 (1999)	High-efficiency full-length cDNA cloning	Carninci, P. and Hayashizaki, Y.		Sciurognathi: Muroidea: Muridae: Murinae: Mus.	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	Mus musculus	Mus musculus (house mouse)	HTC; CAP trapper.	AVISTARS 1 GT:74186125	ert sequence.	clone:KOC0026B09 product:enhancer of zeste homolog 2 (Drosophila),	AKIS7853 2652 bp mRNA linear HTC 21-SEP-2005	

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Karninci, P., Kasukawa, T., Katayama, S., Gough, J., Frith, M.C., Maeda, N., Oyama, R., Ravasi, T., Lenhard, B., Welle, C., Kodzius, R., Shimokawa, K., Bajic, V.B., Brenner, S.E., Batalov, S., Forrest, A.R., Zavolan, M., Davis, M.J., Wilming, L.G., Aidinis, V., Allen, J.E., Zavolan, M., Davis, M.J., Wilming, L.G., Aidinis, V., Allen, J.E., Zavolan, M., Davis, M.J., Wilming, L.G., Aidinis, V., Allen, J.E., Zavolan, M., Baxter, L., Beisel, K.W., Bersano, T., Bono, H., Chalk, A.M., Chiu, K.P., Choudhary, V., Christoffels, A., Clutterbuck, D.R., Chiu, K.P., Choudhary, V., Christoffels, A., Clutterbuck, D.R., Crowe, M.L., Dalla, E., Dalrymple, B.P., de Bono, B., Dalla Gatta, G., di Bernardo, D., Down, T., Engstrom, P., Fagiolini, M., Faulkner, G., Fletcher, C.F., Flkushina, T., Furuno, M., Futaki, S., Gariboldi, M., Georgii-Hemming, P., Gingeras, T.R., Gojobori, T., Green, R.E., Georgii-Hemming, P., Gingeras, T.R., Gojobori, T., Green, R.E., Gestincich, S., Harbers, M., Hayashi, Y., Hensch, T.K., Hirokawa, N., Hill, D., Huminiecki, L., Iacono, M., Ikeo, K., Iwama, A., Ishikawa, T., Jakt, M., Kanapin, A., Katoh, M., Kawasawa, Y., Kelso, J., Kitamura, H., Kurochkin, I. V., Lareau, L.F., Lazarevic, D., Lipovich, L., Liu, J., Liuni, S., McWilliam, S., Madan Babu, M., Madera, M., Marchionni, L., Matsuzawa, S., Miki, H., Mignone, F., Miyake, S.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (30.MAR-2004) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa, 230-0045, Japan (E-mail:genome-res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/, Tel:81-45-503-9222, Fax:81-45-503-9216)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Rike Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to
                                                                                                                                                                                                                                                                                                                                                                                                        whose assistance we gratefully acknowledge. Please visit our web site for further details. URL:http://genome.gsc.riken.jp/
URL:http://fantom.gsc.riken.jp/.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   prepare mouse tissues. Tissues were provided by Hiromitsu Nakauchi ( Center for Tissues were provided by Hiromitsu Nakauchi ( Center for Experimental Medicine, Institute of Medical Science, University of Tokyo 4-6-1, Shirokane-dai, Minato-ku, Tokyo, 108-8639, JAPAN)
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RIKEN Genome Exploration Research Group
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                                                                                                                                                                                                            /mol_type="mRNA"
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                                                                                                                                /db_xref="FANTOM_DB:K0C0026B09"
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gene //Upgantenn- now organism /mol type="genomic DNA" /db_xref="taxon:9606" /db_xref="taxon:9606" /db_xref="taxon:9606" /db_xref="taxon:9606" /db_xref="taxon:9606" /db_xref="taxon:9606" /db_xref="taxon:9606" /db_xref="taxon:9606" /gene="taxon:9606" /locus_tag="HCM0225" /locus_tag=	rce	Perriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M. Inferring nonneutral evolution from human-chimp-mouse orthologous gene trios Science 302 (5652), 1960-1963 (2003) Science 302 (5652), 1960-1	-	222 236	1921 TACTGTGGAGAGATTATTTCTCAAGATGAAGCTGACAGAAGAGGGAAAGTGTATGATAAA 1980
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Direct Submission
Submitted (16-NOV-2003) Celera Genomics,
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Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A.,
Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B.,
Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J.,
Adams, M.D. and Cargill, M.
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Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Buarchontoglires; Glires; Rodentia;
Sciurognathi; Muroidea; Muridae; Murinae; Mus.
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Location/Qualifiers
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/mol_type="genomic DNA"
/db_xref="taxon:10090"
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RESULT 4
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AY399442 2241 bp Pan troglodytes BZH2 gene, VIRTUAL genomic survey sequence. AY399442 AY399442.1 GI:39755431 GSS. Pan troglodytes
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae; Pan. Pan troglodytes (chimpanzee) (bases 1 to 2241) DNA linear GSS 15-DEC-2003 TRANSCRIPT, partial sequence,

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Direct Submission
Submitted (16-NOV-2003) Celera Genomics,
Rockville, MD 20850, USA
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Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.
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Inferring nonneutral evolution from human-chimp-mouse orthologous
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AK153835.1 GI:74150295
HTC; CAP trapper.
                                                                                                                                                                                                                                                                                               Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new Genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AK153835 HZNA linear HTC 21-SEP-200: Mus musculus 2 days neonate thymus thymic cells cDNA, RIKEN full-length enriched library, clone: 0920016A05 product: enhancer of zeste homolog 2 (Drosophila), full insert sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sciurognathi; Muroidea; Muridae; Murinae;
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Okazaki, Y., Furuno, M., Kasukawa, T., Adachi, J., Bono, H., Kondo, S., Nikaido, I., Osato, N., Saito, R., Suzuki, H., Yamanaka, I., Niyosawa, H., Yagi, K., Tomaru, Y., Hasegawa, Y., Nogami, A., Schonbach, C., Gojobori, T., Baldarelli, R., Hill, D.P., Bult, C., Hume, D.A., Quackenbush, J., Schriml, L.M., Kanapin, A., Matsuda, H., Batalov, S., Belsel, K.W., Blake, J.A., Bradt, D., Brusic, V., Chothia, C., Corbani, L.B., Cousins, S., Dalla, E., Dragani, T.A., Fletcher, C.F., Forrest, A., Frazer, K.S., Gaasterland, T., Gustincich, S., Hirokawa, N., Jackson, I.J., Jarvis, B.D., Kanai, A., Kawaji, H., Kawasawa, Y., Kedzierski, R.M., King, B.L., Konagaya, A., Kurochkin, I.V., Lee, Y., Lenhard, B., Lyons, P.A., Maglott, D.R., Numata, K., Okido, T., Pavan, W.J., Pertea, G., Pesole, G., Numatais, L., Marchionni, L., McKenzie, L., Miki, H., Nagashima, T., Pertrovsky, N., Pillai, R., Pontius, J. U., Oj, D., Ramachandran, S., Ravasi, T., Reed, J.C., Reed, D.J., Reid, J., Ring, B.Z., Ringwald, M., Sandelin, A., Schneider, C., Semple, C.A., Setou, M., Shimada, K., Sultana, R., Takenaka, Y., Taylor, M.S., Teasdale, R.D., Tomita, M., Verardo, R., Wagner, L., Wahlestedt, C., Wang, Y., Watanabe, Y., Wells, C., Wilming, L. G., Wynshaw-Boris, A., Yamagisawa, M., Yang, I., Yang, L., Xishiakawa, T., Konno, H., Nakamura, M., Sakazume, N., Sato, K., Shiraki, T., Waki, K., Kawai, J., Alzawa, K., Shiraka, T., Wayazaki, A., Sakai, K., Sasaki, D., Shibata, K., Shiraki, N., Sakazume, N., Sato, K., Shiraki, T., Waki, K., Sasaki, D., Shibata, K., Shiraki, Y., Bander, E. S., Shiraki, A., Yoshino, M., Waterston, R., Lander, E. S., Shiraki, Shiraka, C., Sato, Y., Sasaki, D., Shibata, K., Shiraki, Y., Shiraki, Y., Sakai, Y., Lander, E. S., Shiraki, Shiraka, Shiraka, Y., Sato, K., Sasaki, D., Shibata, K., Shiraki, Y., Sato, K., Sasaki, D., Shibata, K., Shiraki, Y., Sato, K., Sato
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TM RIKEN Genome Exploration Research Group Phase II Team and the
Carninci, P., Kasukawa, T., Katayama, S., Gough, J., Frith, M.C., Maeda, N., Oyama, R., Ravasi, T., Lenhard, B., Wells, C., Kodzius, R., Shimokawa, K., Bajic, V.B., Brenner, S.E., Batalov, S., Forrest, A.R., Zavolan, M., Davis, M.J., Wilming, L.G., Aidinis, V., Allen, J.E., Ambesi-Impiombato, A., Apweller, R., Aturaliya, R.N., Bailey, T.L., Landber, T., Barsano, T., Bono, H., Chalk, A.M., Chiu, K.P., Choudhary, V., Christoffels, A., Clutterbuck, D.R., Crowe, M.L., Dalla, B., Dalrymple, B.P., de Bono, B., Della Gatta, G., di Bernardo, D., Down, T., Engstrom, P., Fagiolini, M., Faulkner, G., Pletcher, C.F., Fukushima, T., Furuno, M., Futaki, S., Gariboldi, M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Analysis of the mouse transcriptome of 60,770 full-length cDNAs Nature 420 (6915), 563-573 (2002)
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Gustincich, S., Harbers, M., Hayashi, Y., Hensch, R., Hirokawa, N.,
Hill, D., Huminiecki, L., Iacono, M., Ikeo, K., Iwama, A., Ishikawa, T.,
Jakt, M., Kanapin, A., Katoh, M., Kawasawa, Y., Kelso, J., Kitamura, H.,
Kitano, H., Kollias, G., Krishnan, S.P., Kruger, A., Kummerfeld, S.K.,
Kurochkin, I.V., Lareau, L.F., Lazarevic, D., Lipovich, L., Liu, J.,
Liuni, S., McWilliam, S., Madan Babu, M., Madera, M., Marchionni, L.,
Morris, K., Mottagui-Tabar, S., Miki, H., Mignone, F., Miyake, S.,
Morris, K., Mottagui-Tabar, S., Mishikawa, S., Nori, F., Okara, O.,
Okazaki, Y., Orlando, V., Pang, K.C., Pavan, M.J., Pavesi, G.,
Pesole, G., Petrovsky, N., Piazza, S., Reed, J., Reid, J.F., Ring, B.Z.,
Ringwald, M., Rost, B., Ruan, Y., Salzberg, S.L., Sandelin, A.,
Schneider, C., Schohbach, C., Sekiguchi, K., Semple, C.A., Seno, S.,
Schneider, C., Schohbach, C., Sekiguchi, K., Semple, C.A., Seno, S.,
Sinclair, B., Sperling, S., Stupka, B., Sugiura, K., Sultana, R.,
Takenaka, Y., Taki, K., Tammoja, K., Tan, S.L., Tang, S., Taylor, M.S.,
Tegner, J., Teichmann, S.A., Ueda, H.R., van Nimwegen, B., Verardo, R.,
Wei, C.L., Yagi, K., Yamanishi, H., Zabarovsky, B., Zhu, S., Zhu, S.,
Brusic, V., Quackenbush, J., Wahlestedt, C., Mattick, J.S., Hume, D.A.,
Kai, C., Sasaki, D., Tomaru, Y., Pukuda, S., Kanamori-Kateyama, M.,
Suzuki, M., Aoki, J., Arakawa, T., Iida, J., Imamura, K., Itoh, M.,
Kato, T., Kawaji, H., Kawagashira, N., Kawashima, T., Kojima, M.,
Kato, T., Shibata, K., Shiraki, T., Suzuki, S., Tagami, M., Waki, K.,
Watchiki, A., Okamura-Oho, Y., Suzuki, H., Kawai, J. and Hayashizaki, Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted (30-MAR-2004) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa, 230-0045, Japan (B-mail:genome-res@gec.riken.jp, URL:http://genome.gsc.riken.jp/, Tel:81-45-503-9222, Fax:81-45-503-9216)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 (bases 1 to 1238)
Arakawa,T., Carninci,P., Fukuda,S., Hashizume,W., Hayashida,K.,
Hori,F., Ilda,J., Imamura,K., Imotani,K., Itoh,M., Kanagawa,S.,
Kawai,J., Kojima,M., Konno,H., Murata,M., Nakamura,M., Ninomiya,N.,
Nishiyori,H., Nomura,K., Ohno,M., Sakazume,N., Sano,H., Sasaki,D.,
Shibata,K., Shiraki,T., Tagami,M., Tagami,Y., Waki,K., Watahiki,A.,
Muramatsu,M., and Hayashizaki,Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RIKEN Genome Exploration Research Group Antisense transcription in the mammalian transcriptome Science 309 (5740), 1564-1566 (2005)
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                                                                                                                                                                                                                                                                                                                                                         CDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in R. Genomic Sciences Center and Genome Science Laboratory in RIKEN Division of Experimental Animal Research in Riken contributed (
                                                                                                                                                                                        URL:http://genome.gsc.riken.jp/
URL:http://fantom.gsc.riken.jp/.
Location/Qualifiers
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Please visit our web site for further details.
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66. ...>1238
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2 (Drosophila) (MGD|MGI:107940 GB|NM_007971, evidence:
BLASTN, 99%, match=1181)
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cell_type="thymic cells"
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91.7%;
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Tel: +49 30 32639 100
Fax: +49 30 32639 111
www.rzpd.de
This clone is available
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RZPD Deutsches Ressourcenzentrum fuer Genomforschung
Heubnerweg 6, D-14059 Berlin, Germany
Email: www.rzpd.de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mRNA sequence.
CR990276
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EST.
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RZPDLIB; (Human T-Lymphocytes) RZPD LIB No.9016
http://www.rzpd.de/cgi-bin/products/set.cgi7libNo=9016 Contact:
                           This clone is available from RZPD;
http://www.rzpd.de/cgi- bin/products/cl.cgi?CloneID=RZPDp9016B0143
contact RZPD (product- support@rzpd.de) for further information.
Primer name: ge3_4 , Primer sequence: CGGATAACAATTCACACAG.
Location/Qualifiers
1. .873
                                                                                                                                                                                                                                                                                                                    Unpublished (2005)
                                                                                                                                                                                                                                                                                                                                                         Heil, O., Ebert, L., Hennig, S.,
                                                                                                                                                                                                                                                                                                                                                                         Hominidae; Homo.
1 (bases 1 to 873)
                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
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nerweg 6, D-14059 Berlin, Germany
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    Lymphocytes library

/organism="Homo sapiens"
/mol_type="mRNA"
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                                                                                                                                                                                                                      ATAAAGATGAAGCCAAATATTGAACCTCCTGAGAATGTGGAGTGGAGTGGTGCTGAAGCC
                                                                                                                                                                                                                                                                            GAAGAGAAGAAGATGAAACTTCGAGCTCCTCTGAAGCAAATTCTCGGTGTCAAACACCA 1251
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTACACTCCTTTCATACGCTTTTCTGTAGGCGATGTTTTAAATATGACTGCTTCCTACAT
                     GCTCCAGCTCCCGCTGAGGATGTGGATACTCCTCCAAGGAAAAAAGAAGAGGAAAACACCGG
                                      GCTCCAGCTCCCGCTGAGGATGTGGATACTCCTCCAAGGAAAAAGAAGAAGAGGAAAACACCGG 1491
                                                                                                    ATTGGGACCAAAACATGTAGACAGGTGTATGAGTTTAGAGTCAAAGAATCTAGCATCATA 143:
                                                                                                                                       TCAATGTTTAGAGTCCTCATTGGCACTTACTATGACAATTTCTGTGCCATTGCTAGGTTA
                                                                                                                                                        TCAATGTTTAGAGTCCTCATTGGCACTTACTATGACAATTTCTGTGCCATTGCTAGGTTA 1371
                                                                                                                                                                                                  ATAAAGATGAAGCCAAATATTGAACCTCCTGAGAATGTGGAGTGGAGTGGTGCTGAAAGCC
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                                                                                ATTGGGACCAAAACATGTAGACAGGTGTATGAGTTTAGAGTCAAAGAATCTAGCATCATA
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/note="Vector: pQE80LSN_cloned; Site_1: SalI; Site_2:
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/clone="RZED9901680143"
/tissue_type="T-Lymphocytes"
/dev_stage="adult"
/lab_host="DH10B"
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JOURNAL COMMENT
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TITLE
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Best Local Similarity
Matches 913; Conserv
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BST.
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1 (bases 1 to 967)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian
Unpublished (1999)

Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
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AGENCOURT_8946117 NIH_MGC_101
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Mammalia; Eutheria; Euarchontoglires;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           http://image.llnl.gov
Plate: LLCM2652 row: c column: 14
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CDNA Library Arrayed by: The I.M.A.G.B. Consortium (LLNL)
CDNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
cound through the I.M.A.G.B. Consortium/LLNL at:
                                                                                                                                                                                                                GAGGGAGCAAAGGAGTTTGCTGCTGCTCTCACCGCTGAGCGGATAAAGACCCCACCAAAA 1044
  GGGGGAGAACAATGATAAAGAAGAAGAAGAAGAAGAAGATGAAACTTCGAGCTCCTCT 122
                                                                      ACCATTAATGTGCTGGAATCAAAGGATACAGACAGTGATAGGGAAGCAGGGACTGAAACG
                                                                                                                                                                     CGTCCAGGAGGCCGCAGAAGAGGACGGCTTCCCAATAACAGTAGCAGGCCCAGCACCCCC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                quality sequence stop: 597.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                          /tissue_type="epidermoid carcinoma, cell line"
/lab host="DH10B (phage-resistant)"
/clone lib="NH10B (phage-resistant)"
/clone lib="NH MGC 101"
/clone lib="NH MGC 101"
/note="Organ: lung; Vector: pOTB7; Site_1: EcoRI; Site_2:
EcoRI; Site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Homo sapiens"
/mol_type="mRNA"
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                                                                                                                                                                                                                                                                                                      Score 868.2; DB 3;
Pred. No. 3.8e-222;
0; Mismatches 40;
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Homo
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                                                             REFERENCE
AUTHORS
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                                                                                                                                                                                         Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                           Homo sapiens (human)
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Hominidae; Homo.

1 (bases 1 to 956)

NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene
Unpublished (1999)

Contact: Robert Strausberg, Ph.D.
Email: cgapbs-remail.nih.gov
Tissue Procurement: CGAP (Stanford)
cDNA Library Preparation: Rubin Laboratory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       899 TTCAAGATCCTGGGCAGAAAATGGATTCTCTCAAAATACTGGGGGAAGATTATTT
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Plate: LLCM2438 row: g column: 10
High quality sequence stop: 677.
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DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
GGACCACAGTGTTACCAGCATTTGGAGGGAGCAAAGGAGTTTGCTGCTGCTGCTCACCGCT
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                                                                           GCAACACCCAACACTTATAAGCGGAAGAACACAGAAACAGCTCTAGACAACAACAACCTTGT
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                                                                                                                                             TTTCATACGCTTTTCTGTAGGCGATGTTTTAAATATGACTGCTTCCTACATCCTTTTCAT
                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /tissue type="hepatocellular carcinoma, cell line"
/lab_host="DH10B (phage-resistant)"
/clone_lib="NIH MCC_100"
/clone_lib="NIH MCC_100"
/clone_Torgan: liver; Vector: pOTB7; Site_1: XhoI; Site_2:
EcoRI, cDNA made by oligo-dT priming. Directionally cloned
into EcoRI/XhoI sites using the following 5' adaptor:
GGCACGAG(G). Size-selected >500bp for average insert size
1.8kb. Library constructed by Ling Hong in the laboratory
of Gerald M. Rubin (University of California, Berkeley)
using ZAP-cDNA synthesis kit (Stratagene) and Superscript
IRT (Life Technologies). Note: this is a NIH_MGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
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972 bp
AGENICURT 10186850 NIH MGC 109 H
IMAGB:6584530 5', MENA sequence-
BUSS6770
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CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLCM2795 row: a column: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: cgapbs-remail.nih.gov
Tissue Procurement: ATCC
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Robert Strausberg, Ph.D.
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                                                                                                                                                                                                                                                       /tissue type="teratocarcinoma, cell line"
/lab host="PH108 (phage-resistant)"
/clone lib="NIH_MGC 109"
/clone Porgan: ovary; Vector: pOTB7; Site 1: EcoRI; Site 2:
/note="Torgan: ovary; Vector: pOTB7; Site 1: EcoRI; Site 2:
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/note="Corgan: ovary; Vector: potation: pot
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/db_xref="taxon:9606"
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                                                                                                     Score 846.2; DB 3;
Pred. No. 3.2e-216;
0; Mismatches 31;
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IMAGE:7475190 57, mRNA sequence.
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                                                                                      TGTATTCTTGGTCTCCCCTACAGCAGAATTTTATGGTGGAAGATGAAACTGTTTTACATA
                                                                                                                                    ATTTTCCAACACAGTCATCCCATTAAAGACTCTGAATGCAGTTGCTTCAGTACCCATAA
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CDNA Library Preparation: Express Genomics, Inc.
CDNA Library Arrayed by: The I.M.A.G.B. Consortium (LLNL)
DNA Sequencing by: Laboratory for Genomics and Bioinformatics,
University of Georgia
Clone distribution: MCC clone distribution information can be
found through the I.M.A.G.B. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM15784 row: p column: 04
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1 (bases 1 to 842)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: cgapbs-r@mail.nih.gov
Tissue Procurement: BresaGen, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
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Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
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primer: JENREV (CAGGAAACAGCTATGACC)
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Location/Qualifiers
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                                                                                                                                                                                                                                    /cell line="BG01"
//cell line="BG01"
/lab host="pH10B-T1 phage-resistant E. coli"
/lab host="pH10B-T1 phage-resistant E. coli"
/clone lib="NIH MGC 262"
/note="Vector: pExpress-1; Site 1: Not1; Site 2: EcoRV;
/note="Vector: pExpress-1; Not1; Site 2: EcoRV;
/note="Vector: pExpress-1; Not2; Site 2: EcoRV;
/note="Vector: pExpress-1; Note: Tolated from the index of blastcoyst stage embryos and differentiated to an early neural progenitor cell type.
Cell line id and NIH Registry designation is BG01.
Positive for Nestin and Musashi expression. Passage number 18. cDNA primed using oligo-dT primer:
5'-pGACTAGTTCTAGATCGCAGCGGCGCCC(7) 25-3' and cloned into the EcoRV/Not1 sites of pExpress-1. This primary library is non-normalized (normalized primary library is non-normalized (normalized primary library is NIH MGC 259). It was constructed by Express Genomics (Frederick, MD). Sequence ends have been trimmed to exclude vector and regions below Phred quality 16. Note: this is a Mammalian Gene Collection library."
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/db_xref="taxon:9606"
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REFERENCE
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Pongo pygmaeus mRNA; cDNA DKFZp469N1815
CR857825
CR857825.1 GI:55726634
                                                        Neuherberg, GERMANY
Clone from S. Wiemann, Molecular Genome Analysis, German Cancer Clone from S. Wiemann, Molecular Genome Analysis, German Cancer Research Center (DKFZ); Email s.wiemann@dkfz-heidelberg.de; sequenced by BMFZ (Biomedical Research Center at the Heinrich-Heine-University, Duesseldorf/Germany) within the cDNA sequencing consortium of the German Genome Project. This clone (DKFZp469N1815) is available at the RZPD Deutsches Ressourcenzentrum fuer Genomforschung GmbH in Berlin, Germany. Please, contact RZPD for ordering:
http://www.rzpd.de/cgi-bin/products/cl.cgi?CloneID=DKFZp469N1815 Further information about the clone and the sequencing project i available at http://mips.gsf.de/projects/cdna/.
                                                                                                                                                                                                                                        Direct Submission Submitted (12-NOV-2004) MIPS, Ingolstaedter Landstr.1, D-85764
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Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
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                                                                                                       CACGGGGATAGAGA-----
                                                                                                                                             GTGAAAGAAGAAGATGAGACTTTTATTGAGGAGCTGATCAATAACTATGATGGGAAAAGTC
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DH108; sites_SfilA + SfilB*
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/note="enhancer of zeste homolog 1 (Homo sapiens)"
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0; Mismatches 726;
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                                                            Homo sapiens (human)

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalla; Butheria; Buarchontoglires; Primates; Catarrhini;
Mominidae; Homo.

B 1 (bases 1 to 837)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)

Contact: Daniela S. Gerhard, Ph.D.

Office of Cancer Genomics

National Cancer Institute / NIH

Bldg. 31 Rm10A07 Bethesda, MD 20892

Email: cgapbs-romail.nih.gov

Tissue Procurement: Bressden, Inc.
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HESC4 147 All.g1 A037 NIH MGC 262 Homo sapiens cDNA clone
IMAGE:7972631 5', mRNA sequence.
DR762983
DR762983.1 GI:71055683
CDNA Library Preparation: Express Genomics, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Laboratory for Genomics and Bioinformatics,
University of Georgia
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Plate: LLAM 17091 row: b column: 21
                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                            GAAACGGGGGGAGAACAATGATAAAGAAGAAGAAGAAGAAGAAGAAGATGAAACTTCGAGC
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                                                                                                                                                                                                                                                                                                 TCCTCTGAAGCAAATTCTCGGTGTCAAACACCCAATAAAGATGAAGCCAAATATTGAACCT
                                                                                                                                                                                                                                                                                                                              GAAACGGGGGAGAGAACAATGATAAAGAAGAAGAAGAAGAAGAAAAAACTTCGAGC
              CGGCAGCCTTGTGACAGTTCGTGCCCTTGTGTGATAGCACAAAATTTTTTGTGAAAAGTTT
                                                                                                                 ACTCCTCCAAGGAAAAAGAAGAGGAAACACCGGTTGTGGGCTGCACACTGCAGAAAGATA 1518
                                                                                                                                                                TATGAGTTTAGAGTCAAAGAATCTAGCATCATAGCTCCAGCTCCCGCTGAGGATGTGGAT 1458
                                                                                                                                                                                       TACTATGACAATTTCTGTGCCATTGCTAGGTTAATTGGGACCAAAACATGTAGACAGGTG
                                                                                                                                                                                                              TACTATGACAATTTCTGTGCCATTGCTAGGTTAATTGGGACCAAAACATGTAGACAGGTG
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                                                                  CAGCTGAAAAAGGACGGCTCCTCTAACCATGTTTACAACTATCAACCCTGTGATCATCCA 1578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         te: LLAM 17091 row: b column: 21
primer: JENREV (CAGGAAACAGCTATGACC)
h quality sequence stop: 837.
Location/Qualifiers
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/tissue_type="embryonic stem"
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/clone="IMAGE:7972631"
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/mol_type="mRNA"
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Kawai, J., Shinagawa, A., Shibata, K., Yoshino, M., Itoh, M., Ishii, Y., Arakawa, T., Hara, A., Fukunishi, Y., Konno, H., Adachi, J., Fukuda, S., Aizawa, K., Izawa, M., Nishi, K., Kiyosawa, H., Kondo, S., Yamanaka, I., Saito, T., Okazaki, Y., Gojobori, T., Bono, H., Kasukawa, T., Saito, R., Kadota, K., Matsuda, H., Ashburner, M., Batalov, S., Casevant, T., Fleischmann, W., Gaasterland, T., Gissi, C., King, B., Kochiwa, H., Xuehl, P., Lewis, S., Matsuo, Y., Nikaido, T., Fesole, G., Quackenbush, J., Schriml, L.M., Staubli, F., Suzuki, R., Tomita, M., Wagner, L., Washio, T., Sakai, K., Okido, T., Furuno, M., Aono, H., Baldarelli, R., Barsh, G., Blake, J., Boffelli, D., Bojunga, N., Carninci, P., de Bonaldo, M.F., Brownstein, M.J., Bult, C., Fletcher, C., Fujita, M., Gariboldi, M., Gustincich, S., Hill, D.,
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                                                                                                                                                                                                                                                                                                                                                                                       Shibata,K., Itoh,M., Aizawa,K., Nagaoka,S., Sasaki,N., Carninci,P., Konno,H., Akiyama,J., Nishi,K., Kiteunai,T., Tashiro,H., Itoh,M., Sumi,N., Ishii,Y., Nakamura,S., Hazama,M., Nishine,T., Harada,A., Yamamoto,R., Matsumoto,H., Sakaguchi,S., Ikegami,T., Kashiwagi,K., Pujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,B., Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura,S., Kawai,J., Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and Hayashizaki,Y. RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer Genome Res. 10 (11), 1757-1771 (2000)
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Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia;
Sciurognathi; Muroidea; Muridae; Murinae; Mus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              URL:http://genome.gsc.riken.jp/
URL:http://fantom.gsc.riken.jp/.
Location/Qualifiers
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Tissues were provided by Dr. John Todd (Dept. of Medical Genetics Wellcome Trust Centre for Molecular Mechanisms in Disease Wellcome Trust Whiding Addenbrookes Hospital Cambridge) whose assistance we gratefully acknowledge.

Please visit our web site for further details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN.

Division of Experimental Animal Research in Riken contributed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RIKEN Genome Exploration Research Group Antisense transcription in the mammalian transcriptome Science 309 (5740), 1564-1566 (2005)
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/translation="mrkmdiaspptskcitywkrkvkseymrlrqlkrlqanmgakal
yvanpakvqektqilneewkklrvqpvqpmkpvsghpflkkcaiesippgpdsqdmlm
                                                                                                                                                                                                                       BLASTN,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Mus musculus"
/mol_type="mRNA"
                                                                    /codon_start=1
/protein_id="BAB32680.1"
/db_xref="GI:74181972"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /strain="NOD"
                                                                                                                                                                                                                                      note="unnamed protein product;
(Drosophila) (MGD|MGI:1097695
                                                                                                                                                                                                                                                                                                                                                            clone
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/db_xref="taxon:10090"
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e_lib="RIKEN full-length enriched mouse cDNA library"
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Query Match
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                                                                                                                                    GAACTCACCGAACAGCAGCTCCCAGGCGCACTTCCTCCTGAATGTACCCCCCAACATAGAT
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                                TGCCGGCGCTGTTTTÄAATATGACTGCTTCCTTCACCCTTTCCACGCCACCCCAAATGTA
                                           TGTAGGCGATGTTTTAAATATGACTGCTTCCTACATCCTTTTCATGCAACACCCAACACT
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TPNIDGPNAKSVQREQSLHSFHTLFCRRCFKYDCFLHFFHATPMVYKRKKEIKIEPE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes Genome Res. 10 (10), 1617-1630 (2000)
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High-efficiency full-length cDNA cloning
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Res Carninci, P., Kasukawa, T., Katayama, S., Gough, J., Frith, M.C., Maeda, N., Oyama, R., Ravasi, T., Lenhard, B., Wells, C., Kodzius, R., Shimokawa, K., Bajic, V.B., Bremner, S.E., Batalov, S., Forrest, A.R., Zavolan, M., Davis, M.J., Wilming, L.G., Aidinis, V., Allen, J.E., Ambesi-Implombato, A., Apweiler, R., Aturaliya, R.N., Bailey, T.L., Bansai, M., Baster, L., Beisel, K.W., Bersano, T., Bono, H., Chalk, A.M., Chiu, K.P., Choudhary, V., Christoffels, A., Clutterbuck, D.R., Chiu, K.P., Choudhary, V., Christoffels, A., Clutterbuck, D.R., Chiu, K.P., Choudhary, V., Christoffels, A., Clutterbuck, D.R., Chiu, D. Down, T., Engstrom, P., Pagiolini, M., Faulkner, G., di Berrardo, D., Down, T., Engstrom, P., Pagiolini, M., Faulkner, G., Heltorich, S., Harbers, M., Hayashi, Y., Hensch, T.K., Hirokawa, N., Hill, D., Huminiecki, L., Iacono, M., Ikeo, K., Iwama, A., Ishikawa, T., Jakt, M., Katoh, M., Katosawa, Y., Kelso, J., Kitamura, H., Kitano, H., Kollias, G., Krishnan, S.P., Kruger, A., Kummerfeld, S.K., Kitano, H., Kollias, G., Krishnan, S.P., Kruger, A., Kummerfeld, S.K., Kurochkin, I.V., Lareau, L.F., Lazarevic, D., Lipovich, L., Liu, J., Liuni, S., McKilliam, S., Madan Babu, M., Madera, M., Marchiomi, L., Matsuda, H., Matsuzawa, S., Miki, H., Mignone, F., Miyake, S., Matsuda, H., Mishiguchi, S., Nishikawa, S., Nori, F., Ohara, O., Okazaki, Y., Orlando, V., Pang, K.C., Pavan, W.J., Pavesi, G., Pectovsky, N., Plazza, S., Red, J., Red, J.F., Ring, B.Z., Ringwald, M., Rost, B., Ruan, Y., Salzberg, S.L., Sandelin, A., Schonbach, C., Sekiguchi, K., Semple, C.A., Seno, S., Sessa, L., Shinada, H., Shimada, K., Silva, D., Sinclair, B., Sperling, S., Stupka, B., Sugdura, K., Sultana, R., Feld, J.F., Rosen, S., Stomer, A., Hide, W., Bult, C., Grimmond, S.M., Teasdale, R.D., Liu, B.T., Hume, D.A., Kai, C., Saaaki, D., Tomaru, Y., Fukuda, S., Kanamori-Katayama, M., Kato, Y., Shibata, N., Kawashima, T., Kojima, M., Kato, N., Kato, T., Mahlestedt, C., Mattick, J. Shida, M., Kato, T., Okada, M., Makano, K., Shibata, K., Shib
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FANTOM Consortium
The transcriptional landscape of the mammalian genome
Science 309 (5740), 1559-1563 (2005)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Katayama, S., Tomaru, Y., Kasukawa, T., Waki, K., Nakanishi, Nakamura, M., Nishida, H., Yap, C.C., Suzuki, M., Kawai, Carninci, P., Hayashizaki, Y., Halls, C., Frith, M., Ravasi, Pang, K.C., Halliana, J., Mattick, J., Hume, D.A., Lipovich, Batalov, S., Engstrom, P.G., Mizuno, Y., Faghihi, M.A., Sand, Chalk, A.M., Mottagui-Tabar, S., Liang, Z., Lenhard, B. and
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Please visit our web site for further details.
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Arakawa, T., Carminci, P., Fukuda, S., Hashizume, W., Hayashida, K.,
Hori, F., Iida, J., Imamura, K., Imotani, K., Itoh, M., Kanagawa, S.,
Hori, F., Iida, J., Konno, H., Murata, M., Nakamura, M., Ninomiya, N.,
Kawai, J., Kojima, M., Konno, H., Murata, M., Nakamura, M., Ninomiya, N.,
Nishiyori, H., Nomura, K., Ohno, M., Sakazume, N., Sano, H., Sasaki, D.,
Shibata, K., Shiraki, T., Tagami, M., Tagami, Y., Waki, K., Watahiki, A.,
Muramatsu, M., and Hayashizaki, Y.
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     Conservative
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TYFNNFCSIARLLGTKTCKQVFQPAVKESLILKLPTDELMNPAQKKKRKHRLWAAHCR
KIQLKKDNNSTQVYNYQPCDHPDRPCDSTCPCIMTQNFCEKFCQCSPDCQNRFPGCRC
                                                                                                                                                                                             /translation="MRKMDIASPPTSKCITYMKRKVKSEYMBLROLKRLQANMGAKAL
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/dev_stage="10
119._.2371
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/protein_id="BAE24446.1"
/db_xref="GI:74180280"
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1 (Drosophila) (MGD|MGI:1097695
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CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Laboratory for Genomics and Bioinformati
University of Georgia
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM15792 row: i column: 02
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IMAGE:7478092 57, mRNA sequence.
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Tissue Procurement: BresaGen, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Daniela S. Gerhard, Ph.D. Office of Cancer Genomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 (bases 1 to 840)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, M
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Bldg. 31 Rm10A07 Bethesda, MD 20892
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Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
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/cell_line="BG01"
/lab host="DH10B-T1 phage-resistant E. coli"
/clone_lib="NIH_MGC_260"
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/mol_type="mRNA"
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                                         AGCGGGGCTCCAAAAAGCATCTATTGCTGGCACCATCTGACGTGGCAGGCTGGGGGATTT 1879
                                                                                    CTTGTGGAGCCGCTGACCATTGGGACAGTAAAAATGTGTCCTGCAAGAACTGCAGTATTC 1819
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Search completed: August 13, 2006, 17:49:15 Job time : 10761 secs 음 성

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/EMC_Celerra_SIDS3/ptodata/2/ina/PCTUS_COMB.seq:*
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2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2		2.2		2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4
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Sequence 1, Appli	Sequence 10, Appl	Sequence 2, Appli	Sequence 2, Appli	Sequence 1, Appli	Sequence 4666, Ap	Sequence 6914, Ap	Sequence 6, Appli	Sequence 6, Appli	Sequence 6, Appli	Sequence 270, App	Sequence 4970, Ap	Sequence 1, Appli	Sequence 198656,	Sequence 9123, Ap	Sequence 1, Appli	Sequence 1, Appli	Sequence 55, Appl	Sequence 1, Appli	Sequence 1, Appli	Sequence 4, Appli	pequence repray

ALIGNMENTS

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TITLE OF INVENTION: Chromatin-Regulator Genes
FILE REFERENCE: 0652.1670001
CURRENT APPLICATION NUMBER: US/09/589,892B
CURRENT FILING DATE: 2000-06-09
PRIOR APPLICATION NUMBER: US 08/945,988
PRIOR APPLICATION NUMBER: PCT/EP96/01818
PRIOR APPLICATION NUMBER: PCT/EP96/01818
PRIOR FILING DATE: 1996-05-02
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                                                                                                                                                                                                                    ; NAME/KEY: 3'UTR; LOCATION: (2331)..(2600) US-09-589-892B-1
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APPLICANT: Jenuwein, Thomas
APPLICANT: Laible, Gotz
APPLICANT: O'Carroll, Donal
APPLICANT: Eisenhaber, Frank
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR FILING DATE: 1995-05-10
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn version 3.3
SEQ ID NO 1
                                                                                                                           Query Match 100.0%; Score 2241; Best Local Similarity 100.0%; Pred. No. 0; Matches 2241; Conservative 0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 2600
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: 5'UTR
LOCATION: (1)..(89)
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LOCATION: (90)..(2330)
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                                                                      ATGGGCCAGACTGGGAAGAAATCTGAGAAAGGGACCAGTTTTGTTGGCGGAAGCGTGTAAAA
                                             ATGGGCCAGACTGGGAAGAATCTGAGAAGGGACCAGTTTGTTGGCGGAAGCGTGTAAAA
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Sequence 1192, Application US/10104047

Patent No. 6943241

GENERAL INFORMATION:

APPLICANT: HELIX RESEARCH INSTITUTE

TITLE OF INVENTION: No. 6943241e1 full length cDN
FILE REFERENCE: H1-A0105

CURRENT APPLICATION NUMBER: US/10/104,047

CURRENT FILING DATE: 2002-03-25

PRIOR APPLICATION NUMBER:
PRIOR APPLICATION NUMBER:
PRIOR APPLICATION NUMBER:
PRIOR FILING DATE:
NUMBER OF SEQ ID NOS: 4096
SOFTWARE: PATENTING Ver. 2.1
SEQ ID NO 1192
LENGTH: 2476
TYPE: DNA
ORGANISM: Homo sapiens
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US-10-104-047-1192
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Best Local Similarity 94.7
Matches 2122; Conservative
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           GATAAAATTTTTGAAGCCATTTCCTCAATGTTTCCCAGATAAGGGCACAGCAGAAGAACTA
                                                                                                                            AGAGAATGTGGGTTTATAAATGATGAAATTTTTTGTGGAGTTTGGTGAATGCCCCTTGGTCAA
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                                               AAAGATCTGGAGGATCACCGAGATGATAAAGAAAGCCGCCCACCTCGGAAATTTCCTTCT
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                                             CGCTGCAAAGCACAGTGCAACACCAAGCAGTGCCCGTGCTACCTGGCTGTCCGAGAGTGT
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         GACCCTGACCTCTGTCTTACTTGTGGAGCCGCTGACCATTGGGACAGTAAAAATGTGTCC
                                                                                               AATTTTTGTGAAAAGTTTTGTCAATGTAGTTCAGAGTGTCAAAACCGCTTTCCGGGATGC
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                                                                                     AATTTTTGTGAAAAGTTTTGTCAATGTAGTTCAGAGTGTCAAAAACCGCTTTCCGGGATGC
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TITLE OF INVENTION: Chromatin-Regulator Genes
FILE REFERENCE: 0652.1670001
CURRENT APPLICATION NUMBER: US/09/589,892B
CURRENT FILING DATE: 2000-06-09
PRIOR APPLICATION NUMBER: US 08/945,988
PRIOR FILING DATE: 1997-11-10
PRIOR APPLICATION NUMBER: PCT/EP96/01818
PRIOR APPLICATION NUMBER: PCT/EP96/01818
PRIOR APPLICATION NUMBER: DS 195 16 776.7
PRIOR FILING DATE: 1996-05-10
NUMBER OF SEQ ID NOS: 21
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US-09-589-892B-5
                                                                                                                                                                                                                                US-09-589-892B-5
                                                                                                                                                                                                                                             SOPTWARE: PatentIn version 3.2
SEQ ID NO 5
SEQ TYPE: 489
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 5, Application US/09589892B Patent No. 6689583
                                                                                                                                                        Matches 265;
                                                                                                                                                                         Query Match
Best Local Similarity
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                                                 ATTCAGCGGGGCTCCAAAAAGCATCTATTGCTGGCACCATCTGACGTGGCAGGCTGGGGG
                    ATCCAGCGTGGACTTAAGAAGCACCTGCTGCTGGCCCCCCTCTGATGTGGCCGGATGGGGC
                                                                                      CTCACCTGTGGGGCCTCAGAGCACTGGGACTGCAAGGTGGTTTCCTGTAAAAACTGCAGC
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Eisenhaber, Frank
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Pred. No. 1.3e-54;
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; LENGTH: 1406
; TYPE: DNA
; ORGANISM: Triticum a: FEATURE:
; PEATURE: unsure
; LOCATION: (513)
; OTHER INFORMATION: n.
US-09-699-266A-10
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CURRENT APPLICATION NUMBER: US/09/699,266A
CURRENT FILING DATE: 2000-10-27
PRIOR APPLICATION NUMBER: PCT/US99/08385
PRIOR FILING DATE: 1999-04-16
PRIOR APPLICATION NUMBER: 60/083,212
PRIOR FILING DATE: 1998-04-27
NUMBER OF SEQ ID NOS: 13
SOFTWARE: Microsoft Office 97
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                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 390; Conserv
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APPLICANT: Morakinyo, Layo O.
APPLICANT: Odell, Joan T.
APPLICANT: Ocosco Jr., Emil M.
APPLICANT: Rafalski, J. Antoni
TITLE OF INVENTION: TRANSCRIPTION AND GENE EXPRESSION REGULATORS
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                                                                                                                                                              1702
1803 CAAGAACTGCAGTATTCAGCGGGGCTCCAAAAAAGCATC-----
                                                                                                                                                                                                                     1644 ATGTAGTTCAGAGTGTCAAAACCGCTTTCCGGGATGCC--GCTGCAAAGCACAGTGCAAC 1701
                                                                                                                                                                                                                                                                                                      1584 GCCTTGTGACAGTTCGTGCCCTTGTGTGATAGCACAAAATTTTTTGTGAAAAGTTTTGTCA 1643
                                                                                                                                                                                                                                                                                                                                                                          1524 GAAAAAGGACGGCTCCTCTAACCATGTTTACAACTATCAACCCTGTGATCATCCACGGCA 1583
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                                                                                                                                                                                                                                                                     363 AATGTGCAACAAAATTGCCCCTGTGTGGAAAATGGGACATGCTGTGAGAAATACTGTGG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTTCTCAAGATGAAGCTGACAGAAGAGGGGAAAGTGTATGATAAATACATGTGCAGCTTT 1995
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                                                                                                                                                              ACCAAGCAGTGCCCGTGCTACCTGGCTGTCCGAGAGTGTGACCCTGACCTCTGTC---- 1756
                                                                                                                                                                                                 GTGTTCAAAAAGCTGCAAAAAACAGATTTAGAGGCTGTCATTGTGCAAAAATCAGTGCAGA 482
                                                       AGCAGGCAATGCCCATGTTTTGCTGCCATCNGGGAATGTGATCCGGATGTTTTGCAGAAA 542
                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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Pred. No. 2.6e-33;
0; Mismatches 287;
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; SEQ ID NO 8
; LENGTH: 3148
; TYPE: DNA
; ORGANISM: Zea mays
US-09-699-266A-8
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APPLICANT: Ma, Hongchang
APPLICANT: Morakinyo, Layo O.
APPLICANT: Odoll, Joan T.
APPLICANT: Orozeco Jr., Emil M.
APPLICANT: Rafalski, J. Antoni
TITLE OF INVENTION: TRANSCRIPTION AND GENE EXPRESSION REGULATORS
FILE REFERENCE: BB1164 US NA
CURRENT APPLICATION NUMBER: US/09/699,266A
CURRENT FILING DATE: 2000-10-27
CURRENT FILING DATE: 2000-10-27
                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 215; Conser
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PRIOR FILING DATE: 1999-04-16
PRIOR APPLICATION NUMBER: 60/083,212
PRIOR FILING DATE: 1998-04-27
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                                                                                                      GAGGGAAAGTGTATGATAAATACATGTGCAGCTTTCTGTTCAACTTGAACAATGATTTTG 2020
                                                                                                                                                                                     AAAATGAATTCATCTCAGAATACTGTGGAGAGATTATTTCTCAAGATGAAGCTGACAGAA 1960
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                                                                                                                                                          AACATGAATACCTTGGTGAGTACACTGGGGGAACTAATCTCACACAAAGAAGCAGATAAGC 2482
                                                                                                                                                                                                                                         TCTTACTTGGAAGATCAGATGTCTCTGGCTGGGGAGCATTCCTCAAGAATAGTGTTAGCA
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TTCTTGACGCATACAGAATGGGTGACAAGCTGAAATTTGCCAACCATGCCCCTGACCCGA
                                     TGGTGGATGCAACCCGCAAGGGTAACAAAATTCGTTTTGCAAATCATTCGGTAAATCCAA 2080
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ilarity 62.7%;
Conservative
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Pred. No. 4.9e-30;
0; Mismatches 128;
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APPLICANT: Fischer, Robert L.
APPLICANT: Ohad, Nir
APPLICANT: Ohad, Nir
APPLICANT: Myosue, Tomohiro
APPLICANT: Yadegari, Ramin
APPLICANT: Harada, John
APPLICANT: Harada, John
APPLICANT: Harada, John
APPLICANT: The Regents of the University of California
APPLICANT: Oslaberg, Robert B.
APPLICANT: The Regents of the University of California
APPLICANT: Oslaberg, Robert B.
APPLICANTON: Development in Plants
FIILE OF INVENTION: Development in Plants
FILE REFERENCE: 023070-086120US
FILE REFERENCE: 023070-086120U
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; NAME/KEY: CDS
; LOCATION: (43)..(2112)
; OTHER INFORMATION: fertilization-independent endosperm 1 (FIE1) cDNA
US-09-177-249-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 6
US-09-177-249-1
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LENGTH: 2136
TYPE: DNA
ORGANISM: Arabidopsis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 333;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 6.0%;
Best Local Similarity 54.0%;
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                                                                        CAAGATGAAGCTGACAGAAGAGGGAAAGTGTATGATAAATACATGTGCAGCTTTCTGTTC 2001
                                                                                                                                                                                                  ATCAAAGATCCTGTGCAGAAAAATGAATTCATCTCAGAATACTGTGGAGAGATTATTTCT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CANANCCGCTTTCCGGGATGCCGCTG---CANAGCACAGTGCAACACCAAGCAGTGCCCG 1716
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CATGATGAAGCTAATGAGCGTGGGAGAATAGAAGATCGGATTGGTTCTTCCTACCTCTTT
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Pred. No. 2.6e-29;
O; Mismatches 266;
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US-09-812-283-1
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Matches 333;
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SEQ ID NO 1
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Patent No. 6
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APPLICANT:
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APPLICANT: The Regents of the University of California
TITLE OF INVENTION: Nucleic Acids That Control Seed and Fruit
TITLE OF INVENTION: Development in Plants
FILE REFERENCE: 023070-086120US
CURRENT APPLICATION NUMBER: US/09/812,283
CURRENT FILING DATE: 2001-03-19
PRIOR APPLICATION NUMBER: 09/177,249
PRIOR PILING DATE: 1998-10-22
PRIOR PILING DATE: 1998-05-01
NUMBER: US 09/071,838
PRIOR FILING DATE: 1998-05-01
NUMBER: 09 SEQ ID NOS: 324
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: CDS
LOCATION: (43)..(2112)
OTHER INFORMATION: fertilization-independent endosperm 1 (FIE1) cDNA
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Local Similarity 54.0%;
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CGGGGCTCCAAAAAGCATCTATTGCTGGCACCATCTGACGTGGCAGGCTGGGGGATTTTT
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                                                               GGAGATGCACTCTTGGTGAGACACCAGTGCAAATCCAATGCAAGAACATGCAATTCCTC 1659
                                                                                                --- GGAGCCGCTGACCATTGGGACAGTAAAAATGTGTCCTGCAAGAACTGCAGTATTCAG
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Yadegari, Ramin
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Pred. No. 2.6e-29;
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US-09-071-838A-1
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GENERAL INFORMATION:
                                                                                                                          INFORMATION FOR SEQ ID NO: 1: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
NAME: Bastian, Kevin L.
REGISTRATION NUMBER: 34,774
REFERENCE/DOCKET NUMBER: 023
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PACENTIN Release #1.0,
CURRENT APPLICATION DATA:
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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      MOLECULE TYPE: CDNA FEATURE:
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                                        TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/09/071,838A FILING DATE: 01-May-1998 CLASSIFICATION: <Unknown>
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OF INVENTION: Nucleic Acids That Control Seed
Fruit Development in Plants
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Harada, John
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; NAME/KBY: CDS
; LOCATION: 43..2112
; OTHER INFORMATION: /product
; fertilization-independent
; endosperm 1 (FIE1) "
; SEQUENCE DESCRIPTION: SEQ ID NO:
US-09-071-838A-1
GENERAL INFORMATION:

APPLICANT: Cold spring Harbor Labs
ITILE OF INVENTION: No. 6239327e1 Seed Speci
ITILE OF INVENTION: use for Same
FILE REFERENCE: mea genes
CURRENT FILING DATE: 1998-04-16
PRIOR APPLICATION NUMBER: 09/061,769A
CURRENT FILING DATE: 1998-04-16
PRIOR APPLICATION NUMBER: 09/061,769
PRIOR FILING DATE: 1998-04-16
NUMBER OF SEQ ID NOS: 21
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 1
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US-09-061-769A-1
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Best Local Similarity
Matches 333; Conserv
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Pred. No. 2.6e-29;
0; Mismatches 266;
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                                                                   ; Sequence 16, Application US/1
; Patent No. 6906244
; GENERAL INFORMATION:
; APPLICANT: Fischer, Robert
; APPLICANT: Kinoshita, Tetsu
; APPLICANT: vadegari, Ramin
; APPLICANT: Gehring, Mary
; APPLICANT: Okamuro, Jack
                                                                                                                                                                                 RESULT 10
US-10-176-884-16
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Best Local Sim:
Matches 333;
  APPLICANT:
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    INVENTION: Compositions INVENTION: Development
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                                                                     Kinoshita, Tetsu
Yadegari, Ramin
Gehring, Mary
Okamuro, Jack
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                              Dang, Van-Dinh
The Regents of the University of California
Ceres, Inc.
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                                     ATAGGTATTTTTGCCAAGAGAGGCCATCCAGACTGGCGAAGAGCTGTTTTTTGATTACAGA
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ATTGGTCTATTTGCGGAGAGAGCAATCGAAGAAGGTGAGGAGCTTT
                                                                                          ACCTTGAATGATCAGCTCGAAATCGATGCTCGCCGTAAAGGAAACGAGTTCAAATTTCTC
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Pred. No. 2.7e-29;
0; Mismatches 266
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US-09-640-211A-349
; Sequence 349, Application US
; Patent No. 6833446
; Patent INFORMATION:
; APPLICANT: Wood, Marion
; APPLICANT: Shenk, Michael
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LENGTH: 2799
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Best Local Similarity
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CURRENT APPLICATION NUMBER: US/10/176,884
CURRENT FILING DATE: 2002-06-21
PRIOR APPLICATION NUMBER: US 60/300,506
PRIOR PILING DATE: 2001-06-22
NUMBER OF SEO ID NOS: 91
SOPTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION: Description of Artificial Sequence:MEA-15G-ESA1 OTHER INFORMATION: chimeric HAT nucleic acid construct encoded by OTHER INFORMATION: transgene plasmid pCRS304-5UAS MEA-15G-ESA1
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ORGANISM: Artificial Sequence
FEATURE:
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Wood, Marion
Shenk, Michael A.
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Pred. No. 3.1e-29;
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APPLICANT: McGrath, Annecos APPLICANT: Glenn, Matthew TITLE OF INVENTION: Compositions and Methods for the TITLE OF INVENTION: Compositions and Methods for the TITLE OF INVENTION: Modification of Gene Transcription FILE REFERENCE: 11000.1021C1U CURRENT APPLICATION NUMBER: US/09/640,211A CURRENT APPLICATION NUMBER: US/09/640,211A CURRENT FILING DATE: 2000-08-16 NUMBER OF SEQ ID NOS: 2368 SOOTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 349 LENGTH: 260 TYPE: DNA ORGANISM: Pinus radiata US-09-640-211A-349 5.3%; Score 119.2; DB 3; Length: 260 TYPE: DNA ORGANISM: Pinus radiata
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SOFTWARE: FRANCE for Windows V.
SEQ ID NO 591
LENGTH: 260
TYPE: DNA
ORGANISM: Pinus radiata
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US-09-640-211A-591
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Best Local Similarity 68.0%;
Matches 166; Conservative
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                                                                                                                                                                                         Query Match 5.3%;
Best Local Similarity 68.0%;
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APPLICANT: Shenk, Michael A.
APPLICANT: Shenk, Michael A.
APPLICANT: McGrath, Annette
APPLICANT: Glenn, Matthew
TITLE OF INVENTION: Compositions and Methods for the
TITLE OF INVENTION: Modification of Gene Transcripti
FILE REFERENCE: 11000.1021C1U
CURRENT APPLICATION NUMBER: US/09/640,211A
CURRENT FILING DATE: 2000-08-16
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CGAGAAGACTCCTTCCTTTTCAACTTGAACGATCAGTATGTTCTTGATGCATACCGG
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Pred. No. 4.5e-25;
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Pred. No. 4.5e-25;
0; Mismatches 78;
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US-09-061-769A-4
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APPLICANT: Cold spring Harbor Labs
APPLICANT: Cold spring Harbor Labs
TITLE OF INVENTION: No. 6239327el Seed Specific Polycomb Group Gene and I
TITLE OF INVENTION: use for Same
FILE REFERENCE: use genes
CURRENT APPLICATION NUMBER: US/09/061,769A
CURRENT FILING DATE: 1998-04-16
PRIOR APPLICATION NUMBER: 09/061,769
PRIOR APPLICATION NUMBER: 09/061,769
PRIOR FILING DATE: 1998-04-16
NUMBER OF SEQ ID NOS: 21
SOPTWARE: Patentin Ver. 2.0
SEQ ID NO 4
LENGTH: 2322
TYPE: DNA
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Best Local :
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TCTGTTCAACTTGAACAATGATTTTGTGGTGGATGCAACCCGCAAGGGTAACAAAATTCG
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                                                       CATGAATCATGAAGCTAATGAGCGTGGGAGAATAGAAGATCGGATTGGTTCTTCCTA
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Conservative (
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Pred. No. 3.2e-24;
0; Mismatches 266;
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US-09-061-769A-3
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TITLE OF INVENTION: No. 6239327el Seed Speci
TITLE OF INVENTION: use for Same
FILE REFERENCE: mea genes
CURRENT APPLICATION NUMBER: US/09/061,769A
CURRENT FILING DATE: 1998-04-16
PRIOR APPLICATION NUMBER: 09/061,769
PRIOR PILING DATE: 1998-04-16
NUMBER OF SEQ ID NOS: 21
NUMBER OF SEQ ID NOS: 21
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Best Local Similarity
Matches 334; Conserve
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SEQ ID NO 3
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FEATURE:
OTHER INFORMATION: Description NAME/KEY: variation
LOCATION: (1760)...(1761)
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TYPE: DNA
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    AGCTTTCTGTTCAACTTGAACAATGATTTTGTGGTGGATGCAACCCGCAAGGGTAACAAA 2049
                                        CACTCATGATCTCATGATGAAGCTAATGAGCGTGGGAGAATAGAAGATCGGATTGGTTCT
                                                                                                                                                         ATCAAAGATCCTGTGCAGAAAAATGAATTCATCTCAGAATACTGTGGAGAGATTAT----
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                                                                                                                    ACATGGGACTCTCTTAAAAAGAATGAGTATCTCGGAGAATATACTGGAGAACTGATCACT 1750
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Pred. No. 3.3e-23;
0; Mismatches 265;
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US-09-270-767-765/c
; Sequence 765, Application US/09270767
; Patent No. 6703491
; PATENT NO. 6703491
; PATENTIAN: INFORMATION:
; APPLICANT: Homburger et al.
; TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster FILE REFERENCE: File Reference: 7326-094
; CURRENT APPLICATION NUMBER: US/09/270,767
; CURRENT FILING DATE: 1999-03-17
; SOFTWARE: PATENTIN VEY. 2.0
; SEQ ID NO 765
; LENGTH: 659
; TYPE: DNA
; ORGANISM: Drosophila melanogaster
US-09-270-767-765
Search completed: August 13, Job time : 449 secs
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                                                                                                                                                                      CATTCGGTAAATCCAAACTGCTATGCAAAAGTTATGATGGTTAACGGTGATCACAGGATA 2124
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                                                                                                                                                                                                                                                                                             GCTGATCTAAGAGAAACAAAGTATGAAGCAATTGGGATTGGGAGTTCCTATTTGTTTCGA 323
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                                                                                                           GGTATTTTTGCCAAGAGAGCCATCCAGACTGGCGAAGAGCTGTTTTTTGATTACAGAT 2182
                                                                                                                                               CACAGTTGCAATCCGAATTGCTACGCTAAGGTTATAACTATTGAATCTGAAAAGAAGATA 203
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                   2006, 16:47:14
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Result
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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1: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US07_PUBCOMB.seq:*
2: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US08_PUBCOMB.seq:*
3: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US09A_PUBCOMB.seq:*
4: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US09A_PUBCOMB.seq:*
5: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US108_PUBCOMB.seq:*
6: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US10A_PUBCOMB.seq:*
7: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US10B_PUBCOMB.seq:*
8: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US10B_PUBCOMB.seq:*
9: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US10F_PUBCOMB.seq:*
10: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US10F_PUBCOMB.seq:*
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13: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US11B_PUBCOMB.seq:*
14: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US11B_PUBCOMB.seq:*
15: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US11B_PUBCOMB.seq:*
16: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US11C_PUBCOMB.seq:*
16: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US11D_PUBCOMB.seq:*
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Sequence 208, App	Sequence 207, App	Sequence 17719, A	Sequence 21279, A	Sequence 5, Appli	Sequence 31520, A	Sequence 277, App	Sequence 14986, A	Sequence 4532, Ap	Sequence 2840, Ap	Sequence 55297, A	Sequence 14071, A	Sequence 14072, A	21967,	5422,		Sequence 5422, Ap	5422,	5422,	Sequence 5700, Ap	Sequence 5700, Ap	Sequence 5700, Ap	Sequence 5700, Ap	Sequence 5700, Ap	Sequence 67, Appl	Sequence 76875, A	Sequence 55, Appl	Sequence 1602, Ap

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Query Match Best Local Similarity 100.0%; Score 2241; DB 10; Length 2600; Best Local Similarity 100.0%; Pred. No. 0; Matches 2241; Conservative 0; Mismatches 0; Indels 0; Gaps 0; Matches 2241; Conservative 0; Mismatches 0; Indels 0; Gaps 0; Qy 1 ATGGGCCAGACTGGGAAGAAATCTGAGAAGGGACCAGTTTGTTGGCGGAAGGGTGTAAAA 60	NUME SOFT SEQ I SEQ I TYF TYF ORG S-10-8		PRICE	Sequence 4184, Application US/10843641A Sequence 4184, Application US/10843641A Publication No. US20050064454A1 GENERAL INFORMATION: APPLICANT: A AVAION Pharmaceuticals, Inc. TITLE OF INVENTION: Cancer Gene Determination and Therapeutic Screening Using TITLE OF INVENTION: Signature Gene Sets FILE REFERENCE: 689290-189 CURRENT APPLICATION NUMBER: US/10/843,641A CURRENT FILING DATE: 2004-05-12 PRIOR APPLICATION NUMBER: US/09/873,367 PRIOR APPLICATION NUMBER: US/09/954,531	Oy 2161 GAGCTGTTTTTTGATTACAGATACAGCCAGGCTGAAGTATGTCGGCATCGAA 2220
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; Sequence 1, Application US/10773302
; Publication No. US20050089880A1
; GENERAL INFORMATION:
; APPLICANT: Jenuwein, Thomas
; APPLICANT: Laible, Gotz
; APPLICANT: O'Carroll, Donal
; APPLICANT: Eisenhaber, Frank
; APPLICANT: Eisenhaber, Frank
; APPLICANT: Rea, Stephen
; TITLE OF INVENTION: Chromatin-Regulator Ge
; FILE REFERENCE: 0652.1670001
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TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
LOCATION: (1)..(89)
FEATURE:
NAME/KEY: 5'UTR
LOCATION: (90)..(2330)
FEATURE:
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NAME/KEY: 3'UTR
LOCATION: (2331)..(2600)
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CURRENT FILING DATE: 2004-02-09
FRIOR APPLICATION NUMBER: US/09/589,892
FRIOR FILING DATE: 2000-06-09
FRIOR APPLICATION NUMBER: US 08/945,988
FRIOR FILING DATE: 1997-11-10
FRIOR APPLICATION NUMBER: PCT/EP96/01818
FRIOR FILING DATE: 1996-05-02
FRIOR APPLICATION NUMBER: DE 195 16 776.7
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  AAAGATCTGGAGGATCACCGAGATGATAAAGAAAGCCGCCCACCTCGGAAATTTCCTTCT
                                                                                                   CAGGATGGTACTTTCATTGAAGAACTAATAAAAATTATGATGGGAAAGTACACGGGGAT
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                                                            TATAATGATGATGATGATGATGATGATGAGAGACGATCCTGAAGAAAAAGAGAAGAAAAGCGAG
                                                                                                                                                             CAGGATGGTACTTCATTGAAGAACTAATAAAAAATTATGATGGGAAAGTACACGGGGAT
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                                            AATTTTTGTGAAAAGTTTTGTCAATGTAGTTCAGAGTGTCAAAAACCGCTTTCCGGGATGC
                                                                                        CAACCCTGTGATCATCCACGGCAGCCTTGTGACAGTTCGTGCCCTTGTGTGATAGCACAA
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 CGCTGCAAAGCACAGTGCAACACCAAGCAGTGCCCGTGCTACCTGGCTGTCCGAGAGTGT
                                                                            CAACCCTGTGATCATCCACGGCAGCCTTGTGACAGTTCGTGCCCCTTGTGTGATAGCACAA
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                                                                                                                                      GCACACTGCAGAAAGATACAGCTGAAAAAGGACGGCTCCTCTAACCATGTTTACAACTAT
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APPLICANT: Aziz, Natasha
APPLICANT: Ginsburg, Wendy M.
APPLICANT: Ginsburg, Wendy M.
APPLICANT: Glotnik, Albert
ITILB OF INVENTION: Methods of Diagnosis of Soft Tissue Sarcoma, Compositions & TITLB OF INVENTION: Methods for Screening for Soft Tissue Sarcoma Modulators
ITILB OF INVENTION: Methods for Screening for Soft Tissue Sarcoma Modulators
ITILB OF INVENTION WEST US/10/723,860
CURRENT APPLICATION NUMBER: US/10/723,860
CURRENT FILING DATE: 2003-11-26
PRIOR APPLICATION NUMBER: 60/429,739
PRIOR FILING DATE: 2002-11-26
INUMBER OF SEQ ID NOS: 8393
SOFTWARE: PatentIn version 3.2
SEQ ID NO 5458
LENGTH: 2711
TYPE: DNA
I CRGANISM: Homo sapiens
US-10-723-860-5458
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US-10-723-860-5458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 5458, Application US/10723860 Publication No. US20040253606A1 GENERAL INFORMATION:
                                                                                                                                              Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 2241; Conservative 0,
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Db Qy Db RESULT	Q D Q	B & B &	B Q B Q	p & p &	5 B & B &	Q	p Q p Q	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
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NUMBER OF SEQ ID NOS: 488
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 231
LENGTH: 2558
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: CDS
LOCATION: (58)..(2295)
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APPLICANT: MUTSUDA, Akio
APPLICANT: MUTSUDA, Akio
APPLICANT: ISHIZAWA, Kenya
TITLE OF INVENTION: STAT6 Activating Gene
FILE REFERENCE: 1254-0207p
CURRENT APPLICATION NUMBER: US/10/153,668
CURRENT FILING DATE: 2002-05-24
PRIOR APPLICATION NUMBER: US 60/293,172
PRIOR FILING DATE: 2001-08-31
PRIOR PILING DATE: 2001-08-39
PRIOR APPLICATION NUMBER: US 60/328,403
PRIOR PILING DATE: 2001-08-39
PRIOR APPLICATION NUMBER: JP 2001-157043
PRIOR APPLICATION NUMBER: JP 2001-260681
PRIOR APPLICATION NUMBER: JP 2001-313175
PRIOR APPLICATION NUMBER: JP 2001-313175
PRIOR APPLICATION NUMBER: JP 2001-313175
PRIOR PILING DATE: 2001-10-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 231, Applicat publication No. US2003
GENERAL INFORMATION:
APPLICANT: HONDA, Goi APPLICANT: MATSUDA, APPLICANT: MURAMATSU, APPLICANT: ISHIZAMA.
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Best Local Similarity 99.9%;
Matches 2238; Conservative
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Sequence 1043, Application US/10172118

Sequence 1043, Application US/10172118

Publication No. US20030224374A1

GENERAL INFORMATION:
APPLICANT: He, Yudong
APPLICANT: He, Yudong
APPLICANT: Linsley, Peter
APPLICANT: Mao, Mao
APPLICANT: Mao, Mao
APPLICANT: Wan 't Veer, Laura
APPLICANT: Van de Vijver, Marc
APPLICANT: Van de Vijver, Marc
APPLICANT: Bernards, Rene
TITLE OF INVENTION: Diagnosis and Prognosis of
FILE REFERENCE: 9301-175-999
CURRENT FILING DATE: 2002-06-14
PRIOR APPLICATION NUMBER: 60/380,770
PRIOR FILING DATE: 2002-05-14

NUMBER OF SEQ ID NOS: 2699
SEQ ID NO 1043
LENGTH: 2576
TYDE: DNA
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LENGTH: 2576

TYPE: DNA

ORGANISM: Homo sapiens

PUBLICATION INFORMATION:

DATABASE ACCESSION NUMBER: NM 004456

DATABASE ENTRY DATE: 2001-06-18
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GENERAL INFORMATION:

APPLICANT: AAII, Natasha
APPLICANT: Gaish, Kurt C.
APPLICANT: Gish, Kurt C.
APPLICANT: Watson, Susan R.
APPLICANTION NUMBER: US 99/663,733
PRIOR APPLICATION NUMBER: US 99/663,733
PRIOR APPLICATION NUMBER: US 60/350,666
PRIOR PILING DATE: 2000-09-15
PRIOR APPLICATION NUMBER: US 60/335,394
PRIOR PILING DATE: 2001-11-15
PRIOR APPLICATION NUMBER: US 60/332,444
PRIOR PILING DATE: 2001-11-21
PRIOR APPLICATION NUMBER: US 60/334,393
PRIOR PILING DATE: 2001-11-24
PRIOR APPLICATION NUMBER: US 60/340,376
PRIOR APPLICATION NUMBER: US 60/340,376
PRIOR APPLICATION NUMBER: US 60/340,376
PRIOR APPLICATION NUMBER: US 60/347,211
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RESULT 8
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; Sequence 1043, Application US/10342887
; Publication No. US20040058340A1
; GENERAL INFORMATION:
   APPLICANT: Dai, Hongyue
   APPLICANT: Linsley, Peter S.
   APPLICANT: Linsley, Peter S.
   APPLICANT: Van 't Veer, Laura Johanna
   APPLICANT: Van 't Veer, Marc J.
   APPLICANT: Bernards, Rene
   TITLE OF INVENTION: Diagnosis and Prognosis of Breast Can.
   TITLE OF INVENTION INVESTS 2003-01-15
   PRIOR APPLICATION NUMBER: 60/298,918
   PRIOR APPLICATION NUMBER: 60/298,918
   PRIOR APPLICATION NUMBER: 60/380,710
   PRIOR FILING DATE: 2002-06-18
   PRIOR APPLICATION NUMBER: 60/380,710
   PRIOR APPLICATION NUMBER: 60/380,710
   PRIOR PILING DATE: 2002-06-14
   NUMBER OF SEQ ID NOS: 2699
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   LENGTH: 2576
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1 ATGGGCCAGACTGGGAAGAATCTGAGAAGGGACCAGTTTGTTGGCGGAAGCGTGTAAAA 60	TYPE: DNA ORGANISM: Homo sapiens S-10-848-755A-129 Query Match Sest Local Similarity 99.9%; Pred. No. 0; Matches 2238; Conservative 0; Mismatches 3; Indels 0; Gaps 0;	CURRENT FILING DATE: 2004-05-18 PRIOR APPLICATION NUMBER: 60/471,842 PRIOR FILING DATE: 2003-05-11 NUMBER OF SEQ ID NOS: 275 SOFTWARE: Patentin version 3.2 CAM: 301891-999188 SEQ ID NO 129 SEQ ID NO 129	Publication No. US20050054826A1 GENERAL INFORMATION: GENERAL INFORMATION: MAGO MAGO TITLE OF INVENTION: HUMAN DIAPHANOUS-3 GENE AND METHODS OF USE THEREFOR FILE REFERENCE: 9301-196-999 FILE REFERENCE: 9301-196-999	9 348-755A-	2221 AGAGAAATGGAAATCCCTTGA 2241 	2161 GAGCTGTTTTTTGATTACAGATACAGCCAGGCTGATGCCCTGAAGTATGTCGGCATCGAA 2220	2101 ATGGTTAACGGTGATCACAGGATAGGTATTTTTGCCAAGAGAGCCATCCAGACTGGCGAA 2160 	2041 GGTAACAAATTCGTTTTGCAAATCATTCGGTAAATCCAAACTGCTATGCAAAAGTTATG 2100 	1981 TACATGTGCAGCTTTCTGTTCAACTTGAACAATGATTTTGTGGTGGATGCAACCCGCAAG 2040 	1921 TACTGTGGAGAGATTATTTCTCAAGATGAAGCTGACAGAAGAGGGAAAGTGTATGATAAA 1980 	1861 GTGGCAGGCTGGGGGATTTTTATCAAAGATCCTGTGCAGAAAAAATGAATTCATCTCAGAA 1920 	1801 TGCAAGAACTGCAGTATTCAGCGGGGCTCCAAAAAGCATCTATTGCTGGCACCATCTGAC 1860 	1741 GACCCTGACCTCTGTCTTACTTGTGGAGCCGCTGACCATTGGGACAGTAAAAATGTGTCC 1800 	1681 CGCTGCAAAGCACAGTGCAACACCAAGCAGTGCCCGTGCTACCTGGCTGTCCGAGAGTGT 1740
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PRIOR FILING DATE: 2002-02-02
NUMBER OF SEQ ID NOS: 135
SOPTWARE: PatentIn version 3.1
SEQ ID NO 78
LENGTH: 2576
TYPE: DNA
ORGANISM: Homo sapiens
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Publication No. US20050202428A1
GENERAL INFORMATION:
APPLICANT: Axordia Limited
TITLE OF INVENTION: Pluripotential Stem Cells
FILE REFERENCE: P101863WO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 99.8%; Score 2236.2;
Best Local Similarity 99.9%; Pred. No. 0;
Matches 2238; Conservative 0; Mismatches
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CURRENT FILING DATE: 2004-08-11
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           TGCAAGAACTGCAGTATTCAGCGGGGCTCCAAAAAGCATCTATTGCTGGCACCATCTGAC
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GENERAL INFORMATION:
APPLICANT: MILLER, LANCE D.
APPLICANT: GEORGE, JOSHY
APPLICANT: VEGA, VINSENSIUS B.
TITLE OF INVENTION: METHODS, SYSTEMS, AND COMPOSITIONS FOR CLASSIFICATION,
TITLE OF INVENTION: PROGNOSIS, AND DIAGNOSIS OF CANCERS
TITLE OF INVENTION: PROGNOSIS, AND DIAGNOSIS OF CANCERS
FILE REFERENCE: 38271-75067
CURRENT APPLICATION NUMBER: US/10/960,414
CURRENT APPLICATION NUMBER: US/10/960,414
CURRENT FILING DATE: 2004-10-06
NUMBER OF SEQ ID NOS: 500
SOFTMARE: Patentin version 3.3
SEQ ID NO 396
LENGTH: 2576
TYPE: DNA
ORGANISM: Homo sapiens
US-10-960-414-396
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Best Local Similarity 99.9%;
Matches 2238; Conservative
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Publication No. US20060074565A1
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Pred. No. 0;
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; APPLICANT: STEEKUMAT, ATM ; TITLE OF INVENTION: EXPRESSION Profile of Prostate Cancer ; FILE REFERENCE: UM-07221 ; CURRENT APPLICATION NUMBER: US/10/210,120	** ** ** **	1321 AGAGTCCTCATTGGCACTTACTATGACAATTTCTGTGCCATTGCTAGGTTAATTGGGACC 1380
GENERAL INFORMATION: APPLICANT: Chinnaiyan, Arul M. APPLICANT: Rubin, Mark A.		1261 AAGCCAAATATTGAACCTCCTGAGAATGTGGAGTGGAGT
RESULT 12 US-10-210-120-95 J. Sequence 95, Application US/10210120		1201 AAAGATGAAACTTCGAGCTCCTCTGAAGCAAATTCTCGGTGTCAAACACCAATAAAGATG 1260
CY 2221 AGAGAAATGGAAATCCCTTGA 2241		1141 GATAGGGAAGCAGGGACTGAAACGGGGGGGAGAGAACAATGATAAAGAAGAAGAAGAAGAAGA 1200
2161		1081 AACAGTAGCAGGCCCAGCACCCCACCATTAATGTGCTGGAATCAAAGGATACAGACAG
2101 ATGGTTAACGGTGATCACAGGATAGGTATTTTGCCAAGAGAGCCATCCAGACTGGCGAA		1021 GAGCGGATAAAGACCCCACCAAAACGTCCAGGAGGCCGCAGAAGAGGACGGCTTCCCAAT 1080
2091 GSTAACAAAATTCGTTTTGCAAATTCATTCGGTAAATCCAAACTGCTATGCAAAAGTTATG	- B 0	961 GGACCACAGTGTTACCAGCATTTGGAGGGAGCAAAGGAGTTTGCTGCTGCTGCTCACCGCT 1020
1981 TACATGIGGAGCITTCCTGTTCAACTTGAACAATGATTTTGTGGTGGATGGAACCCGCAAG		901 GCAACACCCAACACTTATAAGCGGAAGAACACAGAAACAGCTCTAGACAACCATGT 960
1921 TACTGTGGAGAGTATTTCTCAAGATGAGCTGACAGAGAGGGAAAGTGTATGATAAA		841 TITCATACGCTTTTCTGTAGGCGATGTTTTAAATATGACTGCTTCCTACATCCTTTTCAT 900
1861 GTGGCAGGCTIGGGGGATTTTTATCAAAGATCCTGTGCAGAAAAATGAATTCATCTCAGAA 1918 GTGGCAGGCTGGGGGATTTTTATCAAAGATCCTGTGCAGAAAAATGAATTCATCTCAGAA	. u .c	781 ACCCCCAACATAGATGGACCAAATGCTAAATCTGTTCAGAGAGAG
1801 TGCAAGAACTGCAGTATTCAGCGGGGCTCCAAAAGGATCTATTGCTGGCACCATCTGAC	O U O	721 AAGGAAAAATATAAAGAACTCACCGAACAGCAGCTCCCAGGCGCACTTCCTCCTGAATGT 780
1/41 GACCCIGACCICIGICITACITGIGGAGCCGCIGACCATIGGGACAGIAAAAAIGIGICC 1/98 GACCCIGACCTCIGICITACITGIGGAGCCGCIGACCATIGGGACAGIAAAAAIGIGICCC 1798 GACCCIGACCTCIGICITACITGIGGAGCCGCIGACCATIGGGACAGIAAAAAIGIGICCC		661 GATAAAATTTTTGAAGCCATTTCCTCAATGTTTCCAGATAAGGGCACAGCAGAAGAACTA 720
1681 GGCTGCAAAGCACAGGAGCAGCAGCAGCCGTGCTACCTGGCTGTCCGAGAGTGTGT		601 AAAGATCTGGAAGATCACCGAGATGATAAAGAAAGCCGCCCACCTCGGAAATTTCCTTCT 660
1621 AATTITTIGGAAAAGTTTTIGTCAATGTTAGTTCAGAGTGTCAAAACCGCTTTCCGGGATGC		541 TATAATGATGACGATGATGATGAAGGAGCGATCCTGAAGAAGAAGAAGAAAAGCAG 600
1561 CAACCCTGTGATCACGCAGCCTTGTGACAGTTCGTGCCTTGTGTGATAGCACAA		481 AGAGAATGTGGGTTTATAAATGATGAAATTTTTTGTGGAGTTGGTGAATGCCCTTGGTCAA 540
1501 GCACACTGCAGAAAGATACAGCTGAAAAAGGACGGCTCCTCTAACCATGTTTACAACTAT		421 CAGGATGGTACTTTCATTGAAGAACTAATAAAAAATTATGATGGGAAAGTACACGGGGAT 480
1491 CCCGCTGAGGATGTGGATACTCCTCCAAGGAAAAGAAGAGGAAACACCGGTTGTGGGCT 1498 CCCGCTGAGGATGTGGATACTCCTCCAAGGAAAAAGAAGAGGAAACACCGGTTGTGGGCT 1498 CCCGCTGAGGATGTGGATACTCCTCCAAGGAAAAAGAAGAGGAAACACCGGTTGTGGGCT		361 ATGGTGGAAGATGAAACTGTTTTACATAACATTCCTTATATGGGAGATGAAGTTTTAGAT 420
1381 AAAACATGTAGACAAGGTTTAGAGGTTTAGAGGATCTAGCATCATAGCTCCAGCT	···	301 CTGAATGCAGTTGCTTCAGTACCCATAATGTATTCTTGGTCTCCCCTACAGCAGAATTTT 360
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CURRENT FILING DATE: 2002-08-01
PRIOR APPLICATION NUMBER: US 60/309,581
PRIOR FILING DATE: 2001-08-02
PRIOR APPLICATION NUMBER: US 60/334,468
PRIOR FILING DATE: 2001-11-15
NUMBER OF SEQ ID NOS: 123
SOPTWARE: Patentin version 3.2
SEQ ID NO 95
LENGTH: 2512
TYPE: DNA
COGANISM: Homo sapiens
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Db 249 AGGGAGTGTCGGTGACCAGTGACTTTGGATTTTCCAAAAGTCATCCCATTAAAGACT 308 Qy 301 CTGAATGCAGTTGCATTCAGTACCCATAATGTATTCTTGGTCTCCCCTACAGCAGAATTTT 360	Oy 181 AAACAGCGAAGGATACAGCCTGTGCACATCCTGACTTCTGTGAGCTCATTGCGCGGGACT 240	121 ATGTTTAGTTCCAATCGTCAGAAAATTTTGGAAAGAACGGAAATCTTAAACCAAGAATGG 	10 AIGGCCAGACIGGAAAAACICIGAGAAGGGACAGIITIGIITGGCGGAAGGGIGIAAAA 69 Qy 61 TCAGAGTACATGCGACTGAGACAGCTCAAGAGGGTTCAGACGAGCTGATGAAGTAAAGAGT 120	Matches 2240; Conservative 0; Mismatches 0; Indels 1; Gaps 1 ATGGGCCAGACTGGGAAGAAATCTGAGAAGGGACCAGTTTGTTGGCGGAAGCGTGTAAAA	Query Match 99.5%; Score 2229; DB 10; Length 2512; Best Local Similarity 99.9%; Pred. No. 0;			Sreekuma NVENTION: ENCE: UM-C	GENERAL INFORMATION: APPLICANT: Rubin, Mark A. APPLICANT: Chinnaiyan, Arul M. APPLICANT: Layman Harathi	RESULT 13 US-10-909-035-95 Sequence 95, Application US/10909035 : Publication Vo. US/2005013649381	TY	2169	CY 2.01 AIGSTRANGGIGATCACAGAGATATTITTIGCCAAGAGAGCCATCCAGACTGGGGAA 2160 Db 2109 AIGGTTAACGGIGATCACAGAGTATTITTIGCCAAGAGAGCCATCCAGACTGGCGAA 2168 OV 2161 GAGCTGTTTTTTGATAAGAGTATTATTTTGCCAAGAGAACTATTTTTGCCAACAGACTGGCGAA 2220	2049 GGTBACAAAATTCGTTTTGCAAAATCATTCGGTBAAATCCAAACTGCTATGCAAAAGTTATG		Db 1929 TACTGTGGAGAGATTATTTCTCAAGATGAACAAGAGGAGAAGAGGGGAAAGTGTATGATAAA 1988
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81 AAAACATGTAGACAGGTGTATGAGTTTAGAGTCAAAGAATCTAGCATCATAGCTCCAGCT 	1201 ANGCCHARIA I GARCEIC CHARACH GUGGACHGARAIGE I GARCEIC CHARIAIT 1320 1269 ANGCCAAATATTGAACCTCCTGAGAATGTGGAGTGGAGTG	O1 AAAGATGAAACTTCGAGCTCCTCTGAAGCAATTCTCGGTGTCAAACACCAATAAAGATG	1141 GATAGGGAAGCAGGGACTGAAACGGGGGGGAGAGAACAATGATAAAGAAGAAGAAGAAGAAGA 1200 	B1 AACAGTAGCAGGCCCAGCACCCCCACCATTAATGTGCTGGAATCAAAGGATACAGACAG	1021 GAGCGGATAAAGACCCCACCAAAACGTCCAGGAGGCCGCAGAAGAGGACGGCTTCCCAAT 1080	961 GGACCACAGTGTTACCAGCATTTGGAGGGAGCAAAGGAGTTTGCTGCTGCTCTCACCGCT 1020 	901 GCAACACCCAACACTTATAAGCGGAAGAACACAGAAACAGCTCTAGACAACAACCTTGT 960 	841 TTTCATACGCTTTTCTGTAGGCGAIGTTTTAAATATGACTGCTTCCTACATCCTTTTCAT 900	781 ACCCCCAACATAGATGGACCAAATGCTAAATCTGTTCAGAGAGAG	721 AAGGAAAATATAAAGAACTCACCGAACAGCAGCTCCCAGGCGGCACTTCCTCCTGAATGT 780	661 GATAAAATTTTTGAAGCCATTTCCTCAATGTTTCCAGATAAGGGCACAGCAGAAGAACTA 720 	601 AAAGATCTGGAGGATCACCGAGATGATAAAGAAAGCCGCCCACCTCGGAAAATTTCCTTCT 660 	541 TATAATGATGATGACGATGATGATGATGGAGACGATCCTGAAGAAAGA	481 AGAGAATGTGGGTTTATAAATGATGAAATTTTTTGTGGAGTTGGTGAATGCCCTTGGTCAA 540	421 CAGGATGGTACTTTCATTGAAGAACTAATAAAAAATTATGATGGGAAAGTACACGGGGAT 480 	361 ATGGTGGAAGATGAAACTGTTTTACATAACATTCCTTATATGGGAGATGAAGTTTTAGAT 420

PRIOR FILING DATE: PRIOR FILING DATE: NUMBER OF SEQ ID NOS: 4096 SOFTWARE: Patentin Ver. 2.1 SEQ ID NO 1192 LENGTH: 2476 TYPE: DNA	; FILE OF INVENITOR: NO. USZUGJOZJOJZALET LILI TENGLI COM ; FILE REFERENCE: H1-A0105 ; CURRENT APPLICATION NUMBER: US/10/104,047 ; CURRENT FILING DATE: 2002-03-25 . DETOD APPLICATION NUMBER:	192, Application 05/10104047 n No. US20030236392A1 FORMATION: HELIX RESEARCH INSTITUTE	RESULT 14 US-10-104-047-1192	QY 2221 AGAGAAATGGAAATCCCTTGA 2241	QY 2161 GAGCTGTTTTTTGATTACAGATACAGCCAGGCTGATGCCCTGAAGTATGTCGGCATCGAA 2220	QY 2101 ATGGTTAACGGTGATCACAGGATAGGTATTTTTGCCAAGAGAGGCCATCCAGACTGGCGAA 2160	QY 2041 GGTAACAAAATTCGTTTTGCAAATCATTCGGTAAACTGCTATGCAAAGTTATG 2100	QY 1981 TACATGTGCAGCTTTCTGTTCAACTTGAACAATGATTTTGTGGTGGATGCAACCCGCAAG 2040	QY 1921 TACTGTGGAGAGATTATTTCTCAAGATGAAGCTGACAGAAGAGGGAAAGTGTATGATAAA 1980	QY 1861 GTGGCAGGCTGGGGGATTTTTATCAAAGATCCTGTGCAGAAAAATGAATTCATCTCAGAA 1920	QY 1801 TGCAAGAACTGCAGTATTCAGCGGGGGCTCCAAAAAGCATCTATTGCTGGCACCATCTGAC 1860	QY 1741 GACCCTGACCTCTGTCTTACTTGTGAGCCGCTGACCATTGGGACAGTAAAAATGTGTCC 1800	QY 1681 CGCTGCAAAGCACAGTGCAACACCAAGCAGTGCCCGTGCTACCTGGCTGTCCGAGAGTGT 1740	QY 1621 AATTTTTGTGAAAAGTTTTGTCAATGTAGTTCAGAGTGTCAAAACCGCTTTCCGGGATGC 1680	QY 1561 CAACCCTGTGATCATCCACGGCAGCCTTGTGACAGTTCGTGCCCTTGTGTGATAGCACAA 1620	QY 1501 GCACACTGCAGAAAGATACAGCTGAAAAAAGGACGGCTCCTCTAACCATGTTTACAACTAT 1560	Db 1449 CCCGCTGAGGATGTGGATACTCCTCCAAGGAAAAAGAAGAGGAAACACCGGTTGTGGGCT 1508
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       GGTAACAAAATTCGTTTTGCAAAATCATTCGGTAAATCCAAACTGCTATGCAAAAGTTATG
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APPLICANT: WAKAWATSU, AI
APPLICANT: ISHII, SHIZUKO
APPLICANT: ISHII, SHIZUKO
APPLICANT: YAMAWOTO, JUN-ICHI
APPLICANT: ISONO, YUUKO
APPLICANT: ISONO, YUUKO
APPLICANT: HIO, YURI
APPLICANT: NAGAI, KEIICHI
APPLICANT: NAGAI, KEIICHI
APPLICANT: TAMBCHIKA, ICHIRO
APPLICANT: YOSHIKAWA, TSUTOMU
APPLICANT: NAGAHARI, KENJI
CURRENT APPLICATION NUMBER: US/11/072,512
CURRENT PILING DATE: 2005-03-07
PRIOR APPLICATION NUMBER: US 60/350,978
PRIOR PILING DATE: 2002-01-25
PRIOR PILING DATE: 2001-11-05
NUMBER OF SEQ ID NOS: 4096
SOPTWARE: PATCHINI VOT. 2.1
SEQ ID NO 1192
LENGTH: 2476
TYPE: DNA
ORGANISM: Homo Bapiene
US-11-072-512-1192
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US-11-072-512-1192
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Publication No. US20060029945A1
GENERAL INFORMATION:
APPLICANT: ISOGAI, TAKAO
APPLICANT: SUGIYAMA, TOMOYASU
                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 2122; Conserv
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OTSUKI, TETSUJI
WAKAMATSU, AI
SATO, HIROYUKI
ISHII, SHIZUKO
YAMAMOTO, JUN-ICHI
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                 AAACAGCGAAGGATACAGCCTGTGCACATCCTGACTTCTGTGAGCTCATTGCGCGGGACT
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_	1321 AGAGTCCTCATTGGCACTTACTATGACAATTTCTGTGCCATTGCTAGGTTAATTGGGACC 1380
	1261 AAGCCAAATATTGAACCTCCTGAGAATGTGGAGTGGAGT
	1201 AAAGATGAAACTTCGAGCTCCTCTGAAGCAAATTCTCGGTGTCAAACACCAATAAAGATG 1260
	1141 GATAGGGAAGCAGGGACTGAAACGGGGGGGAGAACAATGATAAAGAAGAAGAAGAAGAAGAAG 1200
	1081 AACAGTAGCAGGCCCAGCACCCCCACCATTAATGTGCTGGAATCAAAGGATACAGACAG
	1021 GAGCGGATAAAGACCCCACCAAAACGTCCAGGAGGCCGCAGAAGAGGGCGGCTTCCCAAT 1080
	961 GGACCACAGTGTTACCAGCATTTGGAGGGAGCAAAGGAGTTTGCTGCTGCTCTCACCGCT 1020
	901 GCAACACCCAACACTTATAAGCGGAAGAACACAGAAAACGTCTAGACAACCAAACCTTGT 960
	841 TITCATACGCTTTTCTGTAGGCGATGTTTTAAATATGACTGCTTCCTACATCCTTTTCAT 900
	781 ACCCCCAACATAGATGGACCAAATGCTAAATCTGTTCAGAGAGAG
	721 AAGGAAAAATATAAAGAACTCACCGAACAGCAGCTCCCAGGCGCACTTCCTCCTGAATGT 780
	661 GATAAAATTTTTGAAGCCATTTCCTCAATGTTTCCAGATAAGGGCACAGCAGAAGAACTA 720
	601 AAAGATCTGGAGGATCACCGAGATGATAAAGAAAGCCGCCCACCTCGGAAATTTCCTTCT 660
	541 TATAATGATGATGATGATGATGATGAAGAACGATCCTGAAGAAAGA
	481 AGAGAATGTGGGTTTATAAATGATGAAATTTTTGTGGAGTTYGTGAATGCCCTTGGTCAA 540
	421 CAGGATGGTACTTTCATTGAAGAACTAATAAAAATTATGATGGGAAAGTACACGGGGAT 480
	361 ATGGTGGAAGATGAAACTGTTTTACATAACATTCCTTATATGGGAGATGAAGTTTTAGAT 420
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	01 CTGAATGCAGTTGCTTCAGTACCCATAATGTATTCTTGGTCTCCCCTACAGCAGAATTTT 3
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Search completed: August 13, 2006, 13:10:52 Job time : 2821 secs

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1: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US09_NEW_PUB.seq:*
2: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US06_NEW_PUB.seq:*
3: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US07_NEW_PUB.seq:*
4: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US08_NEW_PUB.seq:*
5: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US10_NEW_PUB.seq:*
6: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US11_NEW_PUB.seq:*
7: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US11_NEW_PUB.seq:*
8: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US11_NEW_PUB.seq:*
9: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US11_NEW_PUB.seq:*
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     GenCore version 5.1.9
Copyright (c) 1993 - 2006 Biocceleration Ltd.
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US-10-539-630-3
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US-11-266-748A-319803
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US-11-266-748A-26094
US-11-266-748A-361225
US-11-266-748A-361225
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US-11-266-748A-363007
US-11-266-748A-393007
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                         Sequence 25769, A Sequence 3, Appli Sequence 29501, Appli Sequence 27880, Sequence 278803, Sequence 151399, Sequence 151399, Sequence 62177, A Sequence 62177, A Sequence 62177, A Sequence 175796, Sequence 175796, Sequence 310225, Sequence 310225, Sequence 31025, Sequenc
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Sequence	Seguence	Seguence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	sequence
126950,	108210.	74139, A	190098,	434414,	383332,	351035,	42962, A	14442, A	324003,	263486,	439365,	355986,	126949,	108209,	74138, A	238252,	216446,	66791, A	63959, A	8875, Ap	440/96,

ALIGNMENTS

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Sequence 25763, Application US/11266748A

Publication No. US20060134663A1

GENERAL INFORMATION:

APPLICANT: Harkin, Paul

APPLICANT: Mulligan, Karl

ITILE OF INVENTION: Methods of Using the Same

FILE REFERENCE: 55815-0102 (319189)

CURRENT APPLICATION NUMBER: US/11/266,748A

CURRENT FILING DATE: 2005-11-03

PRIOR APPLICATION NUMBER: BP 04105482.6

PRIOR FILING DATE: 2004-11-03

PRIOR APPLICATION NUMBER: BP 04105483.4

PRIOR APPLICATION NUMBER: BP 04105483.4

PRIOR APPLICATION NUMBER: BP 04105483.4

PRIOR APPLICATION NUMBER: BP 04105483.9

PRIOR APPLICATION NUMBER: BP 04105483.9

PRIOR APPLICATION NUMBER: BP 04105485.9

PRIOR APPLICATION NUMBER: BP 04105485.9

PRIOR APPLICATION NUMBER: BP 04105484.2

PRIOR APPLICATION NUMBER: BP 04105485.9

PRIOR APPLICATION NUMBER
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; ORGANISM: Homo Sapiens
US-11-266-748A-25769
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                                                                                           ATGGGCCAGACTGGGAAGAATCTGAGAAGGGACCAGTTTGTTGGCGGAAGCGTGTAAAA
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Sequence 3, Application US/10539630
; Publication No. US20060104981A1
; GENERAL INFORMATION:
    TAPLICANT: Takeda Chemical Industries, Ltd.
    TITLE OF INVENTION: Preventing and treating age of the properties                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
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milarity 99.3%;
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PRIOR PILLING DATE: 2004-11-03
PRIOR PELLING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105482.6
PRIOR FILLING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR APPLICATION NUMBER: EP 04105507.0
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PRIOR APPLICATION NUMBER: US 60/700,293
PRIOR PILLING DATE: 2005-03-14
PRIOR PILLING DATE: 2005-07-18
PRIOR PILLING DATE: 2005-07-18
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Publication No. US20060134663A1
GENERAL INFORMATION:
APPLICANT: Harkin, Paul
APPLICANT: Johnston, Patrick
APPLICANT: Mulligan, Karl
               Best Local Similarity Matches 2241; Conser
                                                                                                                 SOFTWARE: PatentIn version SEQ ID NO 29501 LENGTH: 2695
                                         Query Match
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APPLICANT: Mulligan, Karl
TITLE OP INVENTION: Transcriptome Microarray Technology
TITLE OP INVENTION: Methods of Using the Same
FILE REFERENCE: 55815-0102 (319189)
CURRENT PEPLICATION NUMBER: US/11/266,748A
CURRENT FILING DATE: 2005-11-03
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SOFTWARE: PatentIn version 3.3
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US-10-539-630-2
Sequence 2, Application US/10539630
Publication No. US20060104981A1
GENERAL IMFORMATION:
APPLICANT: Takeda Chemical Industries, Ltd.
ITILE OF INVESTION: Preventing and treating ag
FILE REFERENCE: 3130WOOP
CURRENT APPLICATION NUMBER: US/10/539,630
CURRENT PILING DATE: 2005-06-17
PRIOR APPLICATION NUMBER: JP2002-373144
PRIOR FILING DATE: 2002-12-24
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; SEQ ID NO 2
; LENGTH: 2253
; TYPE: DNA
; ORGANISM: Human
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US-11-266-748A-259286

Sequence 259286, Application US/11266748A

Publication No. US20060134663A1

GENERAL INFORMATION:
APPLICANT: Harkin, Paul
APPLICANT: Mulligan, Karl
TITLE OF INVENTION: Transcriptome Microarray Technology and
TITLE OF INVENTION: Methods of Using the Same
FILE REFERENCE: 55815-0102 (319.89)
CURRENT PILICATION NUMBER: US/11/266,748A
CURRENT PILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: EP 04105479.2
PRIOR FILING DATE: 2004-11-03
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105482.6
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR APPLICATION NUMBER: EP 04105483.9
PRIOR APPLICATION NUMBER: EP 04105485.9
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105484.2
PRIOR APPLICATION NUMBER: EP 04105484.2
PRIOR APPLICATION NUMBER: US 60/662,276
PRIOR APPLICATION NUMBER: US 60/662,276
PRIOR APPLICATION NUMBER: US 60/700,293
PRIOR APPLICATION NUMBER: US 60/700,293
PRIOR PILING DATE: 2005-07-18
NUMBER OF SEQ ID NOS: 483996
SOFTWARE: Patentin version 3.3
SEQ ID NO 259286
LENGTH: 1803
TYPE: DNA
ORGANISM: Homo Sapiens
FEATURE:

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RESULT 6
US-11-266-748A-278870
US-11-266-748A-278870, Application US/11266748A
Sequence 278870, Application US/11266748A
PUBLICANT: Harkin, Paul
APPLICANT: Harkin, Paul
APPLICANT: Mulligan, Karl
TITLE OF INVENTION: Transcriptome Microarray Technology and
TITLE OF INVENTION: Methods of Using the Same
FILE REFERENCE: 55815-0102 (319189)
CURRENT APPLICATION NUMBER: US/11/266,748A
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CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: EP 04105479.2
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105482.6
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105485.9
PRIOR PILING DATE: 2004-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105484.2
PRIOR APPLICATION NUMBER: US 60/662,276
PRIOR PILING DATE: 2005-03-14
PRIOR PILING DATE: 2005-03-14
PRIOR PILING DATE: 2005-03-18
NUMBER OF SEQ ID NOS: 483996
SOPTWARE: PATENTIN NUMBER: US 60/700,293
PRIOR PILING DATE: 2005-07-18
NUMBER OF SEQ ID NOS: 483996
SOPTWARE: PATENTIN NUMBER: US 60/700,293
PRIOR PILING DATE: 2005-07-18
NUMBER OF SEQ ID NOS: 483996
SOPTWARE: PATENTIN VERSION 3.3
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Db 1724 ATTTCCCGACACAAGTCATCCCATTAAAGACTCTGAATGCAGTTGCTTCAGTACCCATAA 1665	269 ATTTTCCAACACAAGTCATCCCCATTAAAGACTCTGAATGCAGTTGCTTCAGTACCCCATAA	Query Match 68.6%; Score 1537.8; DB 8; Length 1803; Best Local Similarity 98.0%; Pred. No. 0; Matches 1616; Conservative 0; Mismatches 26; Indels 7; Gaps 7;	; NAME/KEY: misc_feature ; LOCATION: (1425)(1448) ; OTHER INFORMATION: n is a, c, g, or t US-11-266-748A-319803	NAME/KEY: misc feature ; LOCATION: (124)(124) ; OTHER INFORMATION: n is a, c, g, or t ; FRATURE:	NAME/KEY: misc feature ; NAME/KEY: misc feature ; LOCATION: (40)(40) ; OTHER INFORMATION: n is a, c, g, or t : PRATURE.	NAME/KEY: misc feature ; LOCATION: (12) (12) ; OTHER INFORMATION: n is a, c, g, or t PRATURE.	NGTH: PB: DN GANISM	FILING DATE: 2005-07-18 R OF SEQ ID NOS: 483996 ARE: PatentIn version 3.3 NO 319803	FILING DATE: 2004-11-03 APPLICATION NUMBER: US FILING DATE: 2005-03-14 APPLICATION NUMBER: US	FILING DATE: 2004-11-03 APPLICATION NUMBER: EP FILING DATE: 2004-11-03 APPLICATION NUMBER: EP	FILING DATE: 2004-1 APPLICATION NUMBER: FILING DATE: 2004-1 APPLICATION NUMBER:	; CURRENT FILING DATE: 2005-11-03; PRIOR APPLICATION NUMBER: EP 04105479.2; PRIOR FILING DATE: 2004-11-03; PRIOR APPLICATION NUMBER: EP 04105482.6	NVENTION: T: NVENTION: T: NVENTION: 1 ENCE: 55815 ENCE: 55815		RESULT 7 US-11-266-748A-319803/c US-20uence 319803, Application US/11266748A ; Publication No. US2006013463A1	Db 1700 ATCAAAGATCCTGTGCAGAAAAATGAATT 1728		DE 1833 GEGETTCEARRAGETTEGGACAGTRAARATGTGTCCTGCARGACTGCAGGATTCAGC 1639
<i>Q</i>	B &	g cy		B 6	B &	B &	B &	B &	g Q	g Q	dg VQ	dg Qy	dg VQ	d S	g Qy	B &	B 8	B 8
1409 GAGTCAAAGAATCTAGCATCATAGCTCCCAGCTCCCGCTGAGGATGTGGGATACTCCTCCAA 1468	1349 ATTTCTGTGCCATTGCTAGGTTAATTGGGACCAAAACATGTAGACAGGTGTATGAGTTTA 1408	General General General Control of Annual Control of	29 CAAATTCTCGGTGTCAAACACCAATAAAGATCAAGCCAAATTGAACCTCCTCAGAATG	1169 GAGAGAACAATGATAAAGAAGAAGAAGAAAGAAGATGAAACTTCGAGCTCCTCTGAAG 1228 	1109 TTAATGTGCTGGAATCAAAGGATACAGACAGTGATAGGGAAGCAGGGACTGAAACGGGGG 1168 	1049 CAGGAGGCCGCAGAAGAGGACGGCTTCCCAATAACAGTAGCAGGCCCAGCAGCACCCCACCA 1108	989 GAGCAAAGGAGTTTGCTGCTGCTCTCACCGCTGAGCGGATAAAGACCCCCACCAAAACGTC 1048 	929 ACACAGAACAGCTCTAGACAAACCATGTGGACCACAGTGTTACCAGCATTTGGAGG 988 	869 TTAAATATGACTGCTTCCTACATCCTTTTCATGCAACACCCAACACTTATAAGCGGAAGA 928 	809 AATCTGTTCAGAGAGAGACAAAGCTTACACTCCTTTCATACGCTTTTCTGTAGGCGATGTT 868	749 AGCAGCTCCCAGGCGCACTTCCTCCTGAATGTACCCCCAACATAGATGGACCAAATGCTA 808 	689 TGTTTCCAGATAAGGGCACAGCAGAAGAACTAAAGGAAAAATATAAAGAACTCACCGAAC 748 	629 AAGAAAGCCGCCCACCTCGGAAATTTCCTTCTGATAAAATTTTTGAAGCCATTTCCTCAA 688 	569 GAGACGATCCTGAAGAAAGAAAAGCAGAAAGATCTGGAGGATCACCGAGATGATA 628 	509 TTTTTGTGGAGTTGGTGAATGCCCTTGGTCAATATAATGATGATGACGATGATGATGATG 568 	449 TAAAAAATTATGATGGGAAAGTACACGGGGATAGAGAATGTGGGTTTATAAATGATGAAA 508 	389 ACATTCCTTATATGGGAGATGAAGTTTTAGATCAGGATGGTACTTTCATTGAAGAACTAA 448 	329 TGTATTCTTGGTCTCCCCTACAGCAGAATTTTATGGTGGAAGATGAAACTGTTTTTACATA 388

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APPLICANT: Inclair, Four Applicant: Mulligan, Karl
TITLE OF INVENTION: Transcriptome Microarray Technology and TITLE OF INVENTION: Transcriptome Microarray Technology and TITLE OF INVENTION: Methods of Using the Same
FILE REFERENCE: 55815-0102 (319189)
CURRENT APPLICATION NUMBER: US/11/266,748A
CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: EP 04105479.2
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105482.6
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.9
PRIOR APPLICATION NUMBER: EP 04105485.9
PRIOR APPLICATION NUMBER: EP 04105485.9
PRIOR APPLICATION NUMBER: EP 04105484.2
PRIOR FILING DATE: 2004-11-03
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: US 60/662,276
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: US 60/700,293
PRIOR PILING DATE: 2005-07-18
NUMBER OF SEQ ID NOS: 483996
SOPTWARE: PATEENTIN VERSION 3.3
SEQ ID NO 98588
TYPE: DNA
TYPE: DNA
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PEATURE:
NAME/KEY: misc_feature
                                     ORGANISM: Homo Sapiens
                                                       TYPE: DNA
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; LOCATION: (468)...(468)
; OTHER INFORMATION: n is
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NAME/KEY: misc feature
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       TCCTCTAACCATGTTTACAACTATCAACCCTGTGATCATCCACGGCAGCCTTGT--GACA 1594
                                         AGAGGAAACACCNGGTTGTGGGCTGCACACTGCAGAAAGATACAGCTGGAAAAGGACGGC
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APPLICANT: Johnston, Patrick
APPLICANT: Mulligan, Karl
TITLE OF INVENTION: Transcriptome Microarray Technology and
TITLE OF INVENTION: Transcriptome Microarray Technology and
TITLE OF INVENTION: Methods of Using the Same
FILE REFERENCE: 55815-0102 (319189)
CURRENT APPLICATION NUMBER: US/11/266,748A
CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: EP 04105482.6
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR PELING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105493.4
PRIOR APPLICATION NUMBER: EP 04105405.0
PRIOR APPLICATION NUMBER: EP 04105405.9
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105405.9
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105404.2
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105404.2
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: US 60/662,276
PRIOR PILING DATE: 2005-03-14
PRIOR APPLICATION NUMBER: US 60/700,293
PRIOR APPLICATION NUMBER: US 60/700,293
PRIOR PILING DATE: 2005-07-18
NUMBER OF SEQ ID NOS: 483996
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US-11-266-748A-151399
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                                                                                                                                                                                                             SOPTWARE: Patent
SEQ ID NO 151399
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                                                                                              NAME/KEY: misc_feature LOCATION: (673)..(673) OTHER INFORMATION: n i
                                                                                                                                                                 TYPE: DNA
ORGANISM: Homo Sapiens
NAME/KEY: misc_feature
                                OTHER INFORMATION: n is
                                               NAME/KEY: misc_feature
LOCATION: (774)..(774)
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Best Local Similarity
Matches 1074; Conserv
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OTHER INFORMATION: n i
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NAME/KEY: misc_feature
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                                                                                               TCCTCTAACCATGTTTACAACTATCAACCCTGTGATCATCCACGGCAGCCTTGNTGACNA
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Pred. No. 7.8e-269;
0; Mismatches 46;
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TITLE OF INVENTION: Transcriptome Microarray Technology and TITLE OF INVENTION: Methods of Using the Same FILE REFERENCE: 55815-0102 (319189)

CURRENT APPLICATION NUMBER: US/11/266,748A

CURRENT FILING DATE: 2005-11-03

PRIOR APPLICATION NUMBER: EP 04105479.2

PRIOR FILING DATE: 2004-11-03

PRIOR PILING DATE: 2004-11-03

PRIOR PILING DATE: 2004-11-03

PRIOR FILING DATE: 2004-11-03

PRIOR FILING DATE: 2004-11-03

PRIOR PILING DATE: 2004-11-03

PRIOR PILING DATE: 2004-11-03

PRIOR APPLICATION NUMBER: EP 04105483.4

PRIOR PILING DATE: 2004-11-03

PRIOR APPLICATION NUMBER: EP 04105485.9

PRIOR PILING DATE: 2004-11-03

PRIOR APPLICATION NUMBER: EP 04105484.2

PRIOR PILING DATE: 2004-11-03

PRIOR APPLICATION NUMBER: US 60/662,276

PRIOR PILING DATE: 2004-11-03

PRIOR PILING DATE: 2005-103-14

PRIOR PILING DATE: 2005-103-14
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US-11-266-748A-186457/c
; Sequence 186457, Application US/11266748A
; Publication No. US20060134663A1
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; ORGANISM: Homo Sapiens
US-11-266-748A-186457
                      닭
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SOFTWARE: Patentin version 3
SEQ ID NO 186457
LENGTH: 2074
                                                                                                                                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                            Matches 943;
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APPLICANT: Johnston, P
APPLICANT: Mulligan, K
                                                                                                                                                                                                                                                                             Match 42.0%;
Local Similarity 99.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 60/700,293 FILING DATE: 2005-07-18
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TITLE OF INVENTION: Transcriptome Microarray Technology and TITLE OF INVENTION: Methods of Using the Same FILE REFERENCE: 55815-0102 (319189)
CURRENT APPLICATION NUMBER: US/11/266,748A
CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: EP 04105479.2
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105482.6
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.4
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APPLICANT: Johnston, Patrick
APPLICANT: Mulligan, Karl
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; PRIOR PILING DATE: 2004-11-03
; PRIOR APPLICATION NUMBER: US 60/662,276
; PRIOR PILING DATE: 2005-03-14
; PRIOR APPLICATION NUMBER: US 60/700,293
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Pred. No. 3.1e-257;
0; Mismatches 4;
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APPLICANT: Malligan, Rarick
APPLICANT: Mulligan, Karl
ITILE OF INVENTION: Transcriptome Microarray Technology and
ITILE OF INVENTION: Methods of Using the Same
FILE REFERENCE: 55815-0102 (319189)
CURRENT APPLICATION NUMBER: US/11/266,748A
CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: EP 04105499.2
PRIOR APPLICATION NUMBER: EP 04105493.4
PRIOR PELLING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105405.0
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105405.9
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105408.9
PRIOR PILING DATE: 2004-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105408.2
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: US 60/662,276
PRIOR PILING DATE: 2005-03-14
PRIOR APPLICATION NUMBER: US 60/700,293
PRIOR PILING DATE: 2005-07-18
NUMBER: DS-6111N GDATE: 2005-07-18
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NUMBER: DS-6111N GDATE: 2005-07-18
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; ORGANISM: Homo Sapiens
US-11-266-748A-62177
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US-11-266-748A-62177
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Best Local Similarity 64.2%;
Matches 1428; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Patentin
SEQ ID NO 62177
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                                                                                    TTTCTCAAAAAGTGTACCATAGAGAGCATTTTCCCGGGATTTGCAAGCCAACATATGTTA
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Pred. No. 1.8e-228;
0; Mismatches 721;
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RESULT 13

US-11-266-748A-26094
; Sequence 26094, Application US/11266748A
; Publication No. US20060134663A1
; GENERAL INFORMATION:
; APPLICANT: Harkin, Paul
; APPLICANT: Mulligan, Karl
; TITLE OF INVENTION: Transcriptome Microarray Tec
; TITLE OF INVENTION: Methods of Using the Same
; FILE REPERENCE: 55815-0102 (319189)
; CURRENT APPLICATION NUMBER: US/11/266,748A
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APPLICANT: Malligan, Karl
APPLICANT: Malligan, Karl
ITILE OF INVENTION: Transcriptome Microarray Technology and
ITILE OF INVENTION: Methods of Using the Same
PILE REFERENCE: 55815-0102 (319189)
CURRENT APPLICATION NUMBER: US/11/266,748A
CURRENT PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105482.6
PRIOR FILING DATE: 2004-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.9
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: US 04105484.2
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: US 0405484.2
PRIOR PILING DATE: 2004-11-03
PRIOR PILING DATE: 2005-03-14
PRIOR PILING DATE: 2005-07-18
NUMBER OF SEQ ID NOS: 483996
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US-11-266-748A-175796
; Sequence 175796, Application US/11266748A
; Publication No. US20060134663A1
; GENERAL INFORMATION:
; APPLICANT: Harkin, Paul
; APPLICANT: Uniteran, Patrick
; APPLICANT: Willean, Karl
                                                                    SOPTWARE: PatentIn version 3.3
SEQ ID NO 175796
LENGTH: 1011
                                     ORGANISM: Homo Sapiens
FEATURE:
NAME/KEY: misc_feature
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Best Local S
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NAME/KEY: misc feature

TOTATION: (151)...(151)
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LOCATION: (238)..(238)
OTHER INFORMATION: n i
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LOCATION: (64)..(87)
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OTHER INFORMATION: n
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Pred. No. 6.1e-228;
0; Mismatches 57;
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APPLICANT: Harkin, Faul
APPLICANT: Harkin, Faul
APPLICANT: Mulligan, Karl
TITLE OF INVENTION: Transcriptome Microarray Technology and
TITLE OF INVENTION: Methods of Using the Same
FILE REFERENCE: 55815-0102 (319189)
CURRENT APPLICATION UNMBER: US/11/266,748A
CURRENT APPLICATION NUMBER: EP 04105479.2
PRIOR FILING DATE: 2004-11-03
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105482.6
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR FILING DATE: 2004-11-03
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.9
PRIOR APPLICATION NUMBER: EP 04105483.9
PRIOR APPLICATION NUMBER: EP 04105484.9
PRIOR APPLICATION NUMBER: EP 04105485.9
PRIOR APPLICATION NUMBER: EP 04105484.2
PRIOR FILING DATE: 2004-11-03
PRIOR PRILING DATE: 2004-11-03
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PRIOR PRILING DATE: 2004-11-03
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PRIOR PILING DATE: 2004-11-03
PRIOR PILING DATE: 2005-03-14
PRIOR PILING DATE: 2005-03-14
PRIOR PILING DATE: 2005-03-16
PRIOR PILING DATE: 2005-03-16
PRIOR PILING DATE: 2005-03-16
PRIOR PILING DATE: 2005-03-16
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US-11-266-748A-361225/c

; Sequence 361225, Application US/11266748A
; Publication No. US20060134663A1
; GENERAL INFORMATION:
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PEATURE:

NAME/KEY: misc_feature
LOCATION: (30)..(30)
OTHER INFORMATION: n is a
PEATURE:
NAME/KEY: misc_feature
                                                                                                                                                       NUMBER OF SEQ ID NOS: 483996
SOFTWARE: PatentIn version 3
SEQ ID NO 361225
                                                                                                         ORGANISM: Homo Sapiens
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                                                          CCATGTTTACAACTATCAACCCTGTGATCATCCACGGCAGCCTTGT--GACAGTTCGTGC
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Db 124 CCTTTGTGTGATAGCACAAAAATTTTTGGTGAAAAGTTTTGTCAATG 78
Search completed: August 13, 2006, 17:06:06
Job time: 529 secs

GenCore version 5.1.9
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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Sequence 746 AA;	The DNA was isolated by screening a human B cell cDNA library with mid Drosophila DNA probes based on the conserved SET domains in E(z) and Su(var)3-9. The DNA, and its products, are useful in therapy (esp. ger therapy) and diagnosis of human diseases that involve deregulated chromatin-regulator genes having a SET domain, esp. cancer. (Updated c5-MAR-2003 to correct PR field.)	Claim 12; Fig 7; 38pp; German.	New DNA encoding chromatin regulator protein with SET domain - and related vectors, transformed cells, proteins and antibodies, for diagnosis and treatment of cancer.	WPT; 1996-518672/51. N-PSDB; AAT43624.	Jenuwein T, Laible G;	(BOEH) BOEHRINGER INGELHEIM INT GMBH.	10-MAY-1995; 95DE-01016776.	02-MAY-1996; 96WO-BP001818.	14-NOV-1996.	WO9635784-A2.	Homo sapiens.	Chromating; regulator; EZH1; EZH2; SUV39H; SET domain; gene therapy; cancer.	Chromatin regulator protein EZH2.	25-MAR-2003 (revised) . 05-MAY-1997 (first entry)	AAW05260;	RESULT 1 AAW05260 D AAW05260 standard; protein; 746 AA.

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RESULT 2
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Best Local Similarity
Matches 699; Conser
                                                                                                                         Lung cancer-associated polypeptide; cytostatic; emphysema; antiinflammatory; antiasthmatic; non-small cell lung cancer; atelectasis; small cell lung cancer; benign lesion; precancerous lesion; bronchitis; chronic obstructive pulmonary disease; hypersensitivity pneumonitis; interstitial pulmonary fibrosis; fibrosis; asthma; bronchiectasis.
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Pred. No. 6.9e-282;
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                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to a method for detecting a lung cancer-associated contrained in a cell from a patient, comprising contacting a biological contracting tin a cell from a patient, comprising contacting a biological contracting to the patient with a polynucleotide that selectively hybridises to a sequence that is at least 80 % identical to a gene that exhibits concreased or decreased expression in lung cancer samples. Lung cancer-associated polynucleotides and polypeptides are used for identifying a compound that modulates a lung cancer-associated polypeptide, for cancer in a patient and for treating a mammal having lung cancer by compound interving a modulatory compound identified. The methods are useful for treating lung cancer, such as small cell lung cancer, non-small cell lung cancer or other benign or precancerous lesions, e.g. atelectasis, cemphysema, bronchitis, chronic obstructive pulmonary disease, fibrosis, asthma and bronchictasis. The genes, polynucleotides and polypeptides are useful for diagnostic purposes and as targets for screening for therapeutic compounds that modulate lung cancer, such as antibodies. Sequences ABUS6408-ABUS6745 represent lung cancer-associated polypeptides of the
                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 698
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10-MAY-2001;
09-NOV-2001;
13-NOV-2001;
29-NOV-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Detecting a lung cancer-associated transcript in a cell from a patier for treating lung cancer, by contacting a biological sample from the patient with a polynucleotide that exhibits increased or decreased expression in lung cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Aziz
                                                                                                                                                                                                                                                                                                                                                                                           Sequence 746
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DB; ABX76182.
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                                                                ; 2001US-0284770P.
; 2001US-0290492P.
; 2001US-0339245P.
; 2001US-0350666P.
; 2001US-0334370P.
; 2002US-0372246P.
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Pred. No. 2e-281;
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                                                                                                                                                                                                                                                                                                                        Human; STAT6-activating protein; drug screening; activator; inhibitor; allergic disease; infilammation; autoimmune disease; diabetes; hyperlipidaemia; cancer; infection; HIV infection; human immunodeficiency; cancer; Thi hyperfunction; antiallergic; antiinflammatory; antidiabetic; antilipaemic; antiinfective; anti-HIV; cytostatic; gene therapy; antisense therapy; ribozyme therapy.
                                                                      STAT6-activating proteins and encoded genes, applicable in diagnosis and developing drugs to treat allergic diseases, inflammations, autoimmune diseases, diabetes, hyperlipidemia, infections e.g. HIV,
                                                                                                                                                                                           25-MAY-2001; 2001JP-00157043.
30-AUG-2001; 2001JP-00260681.
10-OCT-2001; 2001JP-00313175.
                                                                                                                                                                                                                                      22-MAY-2002; 2002WO-JP004949
                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                      Human
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The invention relates to 242 human STAT6-activating proteins and encoding them (ADG10411-ADG10894) and to sequences with 95% or motion of the STAT6-activating proteins and their encoding nucl

RESULT 4
ADN39392
ID ADN3

ADN39392 standard; protein; 746

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                                                                  CKNCSIQRGSKXHLLLAPSDVAGWGIFIKDPVQKNEFISEYCGEIISQDEADRRGKVYDK
                                                                                CKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNEFISEYCGBIISQDEADRRGKVYDK
                                                                                                                            NFCEKFCQCSSECQNRFPGCRCKAQCNTKQCPCYLAVRECDPDLCLTCGAADHWDSKNVS
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nilarity 99.9%;
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Pred. No. 2e-281;
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whose expression is upregulated or downregulated in specific cancers or cother diseases such as angiogenic or fibrotic disorders, and to methods co fetermining the presence or absence of a pathological call in a cCC patient by detecting a nucleic acid at least 80% identical to those of the invention or by detecting a polypeptide of the invention. The cCC invention also relates to expression vectors and host cells comprising a cCC polypeptide of the invention; antibodies which specifically bind a cCC polypeptide of the invention; use of such antibodies for drug targeting; cCC and methods of screening for modulators of activity or expression of the colypeptides and nucleic acids. The mucleic acids for polypeptides, ccc antibodies are useful for disposing, prognosing and treating cc anterosclerosis, inflammatory diseases, autonimume diseases, retinal ccc neovascularistaion syndromes, scarring and uterine fibroids. They may cc also be useful in wound healing and in contraception. The present ccc sequence represents a polypeptide of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-FEB-2002;
29-MAR-2002;
04-APR-2002;
12-APR-2002;
05-JUN-2002;
16-JUL-2002;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Determining the presence or absence of a pathological useful for diagnosing, prognosing or treating cancer, a nucleic acid in a biological sample.
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21-NOV-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 12; SEQ ID NO B76; 1385pp; English
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10-JAN-2002;
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2001US-0334399P.
2001US-0335394P.
2001US-034731P.
2002US-0347319P.
2002US-0347349P.
2002US-0356714P.
2002US-0370110P.
2002US-0370110P.
2002US-0370110P.
2002US-0370110P.
2002US-0370110P.
2002US-0396314P.
2002US-0396314P.
2002US-039775P.
2002US-039775P.
2002US-039775P.
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R, Watson SR,
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Wilson F
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B, Zlotnik
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detecting
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  Homo
                                                  prophylaxis;
                                                     Human; EZH2; enhancer of zeste homologue 2; chromosome 7q35; histone methyltransferase; histone H3; cell cycle; tumorigenesis; inhibitor; apoptosis; cancer; colorectal cancer; breast cancer; lung cancer; pancreatic cancer; ovarian cancer; drug screening; prophylaxis; prevention; diagnosis; cytostatic; enzyme.
                                                                                                                                                                                                                 Human EZH2
                                                                                                                                                                                                                                                                                                                               ADP95920;
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  sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CC The invention relates to an agent for the prophylaxis and therapy of CC cancer comprising a compound which inhibits the activity or expression of CC human EZH2 (enhancer of zeste homologue 2), resulting in apoptosis. The CC EZH2 inhibitors include anti-EZH2 antibodies and EZH2 antisense nucleic acids. The invention also relates to a kit for screening for inhibitors CC of EZH2 activity or expression. EZH2 is a component of a complex with that one methyltransferase activity which methylates histone H3 on lysine cresidues at position 9 and/or 27. It has been found to be deregulated in CC various tumours, and acts as a mediator of tumorigenesis, being able to creverse repression of cyclin A which in turn mediates cell cycle advancement. The agent of the invention can be used for preventing, treating and diagnosing cancers such as colorectal cancer, breast cancer, lung cancer, pancreatic cancer such as colorectal can also be used in drug screening. The agent of the invention is safe and less toxic than prior art cancer prophylactic/therapeutic agents. The present sequence crepresents human EZH2, which is referred to in the claims.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local (
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                                                                                                                                                                                  SKNVSCKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNBFISEYCGBIISQDBADRRG
                                                standard; protein;
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                                                                                                                                                                                                                   CVIAQNFCEKFCQCSSECQNRFPGCRCKAQCNTKQCPCYLAVRECDPDLCLTCGAADHWD
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Human protein encoded by clone PUAEN20003120

Human; pharmaceutical; diagnostic; gene therapy; tissue regeneration; cell regeneration; membrane protein; signal transduction-related protranscription-related protein; osteoporosis; neurological disease; protein;

Homo sapiens

EP1308459-A2

07-MAY-2003

28-MAR-2002; 2002EP-00007401

05-NOV-2001; 25-JAN-2002; 2001JP-00379298. 2002US-00350978.

HELIX RES INST. BIOTECHNOLOGY.

Isogai T, Yamamoto 'n yoshikawa Sugiyama T, ΉK Otsuki T, Wakamatsu A, Hio Y, Otsuka K, Nagai Otsuka M, Nagahari K, N Masuho <u>,</u>, Sato H, Irie ho Y; Ishii s

2003-450961/43. DB; ADB63038.

New polynucleotides and polypeptides, useful for developing a diagnostic marker or medicines for regulation of their expression and activity, or as targets of gene therapy. therapy.

Claim 1; Page; 222pp; English.

RESULT 6
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XX C The invention discloses a polynucleotide comprising a sequence selected from 1970 fully defined nucleotide sequences which encode novel polypeptides. Also claimed is a polypeptide encoded by the polynucleotid or its partial peptide, an antibody binding to the polypeptide or peptid of the polynucleotide, immunologically assaying the polypeptide or peptid of the polynucleotide by contacting the polypeptide or peptide with the antibody of the encoded protein, and observing the binding between the two, a transformant carrying the polynucleotide in an expressible manner and an antisense polynucleotide. The oligonucleotide expressible manner and an antisense polynucleotide. useful as a primer for synthesising the polymucleotide, or as a probe polynucleotide

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                                                                                                                                   CKNCSIQRGSKKHILLAPSDVAGWGIFIKDPVQKNEFISEYCGEIISQDEADRRGKVYDK 660
                                                                                                                                                                                NPCEKPCQCSSECQNRPPGCRCKAQCNTKQCPCYLAVRECDPDLCLTCGAADHWDSKNVS
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                       YMCSFLFNLNNDFVVDATRKGNKI RFANHSVNPNCYAKV
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pred. No. 1.1e-263;
0; Mismatches 1;
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RESULT 7
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ADG10764 standard; protein; 517

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                                                                                                                                                                                                                                    The invention relates to 242 human STAT6-activating proteins and cDNAs CC encoding them (ADG1041-ADG10894) and to sequences with 95% or more homology to the STAT6-activating proteins and their encoding nucleic acids. The invention also relates to recombinant vectors and host cells CC comprising a STAT6-activating protein-encoding nucleic acid; the recombinant production of a STAT6-activating protein; an antibody comprising a STAT6-activating protein; an antibody and the street of the cribozymes targeted to nucleic acids encoding a STAT6-activating protein; an antibody compositions comprising a modulator of STAT6-activating protein; cribozymes targeted to nucleic acids encoding a STAT6-activating protein; cribozymes targeted to nucleic acids encoding a STAT6-activating protein; cribozymes targeted to nucleic acids encoding a STAT6-activating protein; cribozymes targeted to mucleic activations of streating proteins; cribozymes targeted them, and modulators of STAT6-activating proteins, cribozymes targeted to the intendice of allergic cribozymes and treatment of allergic cribozymes and treatment of allergic cribozymes and inflammation, autolumune disease, diabetes, hyperlipidaemia, cribozymes and treatment of allergic chapter inflammation, autolumune disease, diabetes, hyperlipidaemia, cribozymes and treatment of allergic chapter inflammation. The present sequence is related to the invention.
                                                                                                                                                       Query Match
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Matches 470
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 allergic disease; inflammation; autoimmune disease; diabetes; hyperlipidaemia; cancer; infection; HIV infection; human immunodeficiency; cancer; Th1 hyperfunction; antiallergic; antiinflammatory; antidiabetic; antilipaemic; antiinfective; ant cytostatic.; gene therapy; antisense therapy; ribozyme therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-MAY-2001; 2001JP-00157043.
30-AUG-2001; 2001JP-00260681.
10-OCT-2001; 2001JP-00313175.
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N-PSDB; ADG10763.
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                                                                                                                                                                                                                                  Sequence
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                                                                                                                                                                           Similarity
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                                                                                                             MFPDKGTAEBLKEKYKELTEQQLPGALPPECTPNIDGPNAKSVQREQSLHSFHTLFCRRC
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                      FKYDCFLHPFHATPNTYKRKNTETALDNKPCGPQCYQHLEGAKEFAAALTAERIKTPFKR
                                                                              MFPDKGTABBLKBKYKELTEQQLPGALPPECTPNIDGPNAKSVQREQSLHSFHTLFCRRC
  FKYDCFLHPFHATPNTYKRKNTETALDNKPCGPQCYQHLEGAKEFAAALTAERIKTPPKR
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                                                                                                                                                       Score 2602; DB 7;
; Pred. No. 6.3e-190;
0; Mismatches 0;
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This invention describes a novel method of predicting or determining whether a mammal will respond or is responding to an anti-cancer agent that modulates cyclin-dependent kinase (cdk) activity. The method comprises measuring the level of one or more biomarkers selected from 2774 biomarkers given in the specification (nucleotide sequence SEQ ID NO:1246 (Genbank SET W28729) is especially preferred). The method of the invention is utilized in a kit for determining or predicting whether patient would be susceptible or resistant to treatment by an agent modulating cdk activity. The invention also describes a method for utilizing individualized genetic profiles for treating diseases and disorders based on patient's response and molecular level, specialized microarrays comprising the biomarkers described, antibodies directed against the biomarkers and a cell culture model to identify biomarkers. The cdk modulator is preferably N-5-[[5-(1,1-Dimethylethyl)-2-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Biomarkers useful for predicting to a cancer treatment comprising dependent kinase activity.
                                                                                                                                                                                                                                                                                                                                                                                                                         Claim
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ABU11057; 05-FBB-2003

(first

entry)

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ABU11057 standard;

protein;

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Human; NOVX; adrenoleukodystrophy; haemophilia; stoke; VHL; congenital adrenal hyperplasia; haemophilia; hypercoagulation;

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idiopathic thrombocytopaenic purpura; autoimmune disease; allergy; immunodeficiencies; transplantation; von Highel-Lindau syndrome; Alzheimer's disease; truburous sclerosis; Parkinson's disease; pepilepsy; Huntington's disease; cerebral palsy; Lesch-Nyhan syndrome; pain; multiple sclerosis; ataxia-telangiectasia; leukodystrophy; anxiety; behavioural disorder; addiction; neuroprotection; diabetes; ARDS; renal artery stenosis; interstitial nephritis; glomerulonephritis; polycystic kidney disease; systemic lupus erythematosus; IgA; renal tubular acidosis; immunoglobulin A nephropathy; hypercalcaemia; cirrhosis; transplantation; asthma; emphysema; scleroderma; GYHD; adult respiratory distress syndrome; graft versus host disease; lymphedema; fertility; pancreatitis; obesity; haemophilia; ulcer; and partical disease; pages a screen and pages and page
cancer;
trauma; regeneration; infection.
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03-APR-2002; 2002WO-US010522.

03-APR-2001; 03-APR-2001; 05-APR-2001; 06-APR-2001; 10-APR-2001; 11-APR-2001; 11-APR-2001; 11-APR-2001; 12-APR-2001; 23-APR-2001; 24-APR-2001; 25-APR-2001; 27-APR-2001; 27-APR-2001; 12-MAY-2001; 11-MAY-2001; 2001US-0281863P 2001US-0281906P 2001US-0282020P 2001US-0282934P 2001US-02853512P 2001US-0285390P 2001US-028698P 2001US-028629P 2001US-028629P 2001US-0287213P 2001US-0291134P 2001US-0291134P 2001US-0291134P 2001US-0291134P 2001US-0291134P 2001US-0291134P 2001US-0291134P 2001US-0391728P 2001US-0391728P 2001US-0393728P 2001US-033270P 2002US-0345221P

(CURA-) CURAGEN CORP

Spytek KA, Li L, Edinger SR, Ellerman K, Stone DJ, Malyankar UM; Shimkets RA, Guo X, Anderson DM, Patturajan M, Berghs C, Gerlach Taupier RJ, Pena CEA, Padigaru M, Liu Y, Burgess CE, Miller CE; Gusev VY, Kekuda R, Gorman L, Zerhusen BD, Baumgartner JC; Tcherney VT, Vernet CAM, Smithson G, Heyes MP, Shenoy SG, Liu X; ach <

2003-046863/04. DB; ABX17535.

New polypeptides, designated NOVX polypeptides, useful for treating hemophilia, idiopathic thrombocytopenic purpura, autoimmune disease allergies, transplantation, Alzheimer's disease and stroke. disease,

Claim 1; Page 152; 320pp; English.

The invention relates to an isolated NOVX polypeptide selected from NOV1-NOV27 polypeptides, a mature form of NOVX, a variant of NOVX or a fragment of NOVX. Also included are determining the presence or amount of NOVX in a sample (by using an antibody that immunospecifically bind to the polypeptide), determining the presence of or predisposition to disease associated with altered levels of NOVX in a first mammalian subject, identifying a potential therapeutic agent for use in the treatment of pathology related to aberrant expression of physiological interactions of NOVX, screening for a modulator of activity or of latency or predisposition to a pathology associated with NOVX, the nucleic acid

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CC encoding NOVX, vectors and host cells. NOVX is useful for identifying an CC agent (a cellular receptor or downstream effector) that binds to NOVX. CC NOVX and NOVX nucleic acids are useful for treating or preventing NOVX-CC associated disorders in humans, and in the manufacture of a medicament CC darenoleukodystrophy, congenital adrenal hyperplasia, haemophilia, CC disease, allergies, immunodeficiencies, transplantation, Von Hippel-CC Lindau (VHL) syndrome, Alzheimer's disease, stroke, tuburous sclerosis, CC Parkinson's disease, huntington's disease, cerebral palsy, epilepsy, CC lesch-Nyhan syndrome, Multiple sclerosis, atxaia-telangiectasia, CC neuroprotection, diabetes, renal artery stenosis, interstitial nephritis, CC neuroprotection, diabetes, renal artery stenosis, interstitial nephritis, CC erythematosus, renal tubular acidosis, immunoglobulin (Ig) A nephropathy, CC hypercalcaemia, cirrhosis, transplantation, athina, emphysema, CC host disease (GVHD), lymphedema, fertility, pancreatitis, obesity, cancerial or parasitic infections. The present sequence represents a NOVX occurred to the present sequence Sequence æ 6; Length

Query Match Best Local Similarity 425; 15 15 WKRKVKSEYMRLROLKRLQANMGAKALYVANFAKVQEKTQILNEEWKKLRVOPVQSMKPV WRKRVKSEYMRLROLKRFRRADEVKSMFSSNRQKILERTEILNQEWKQRRIQPVHILTSV Conservative 58.1%; k; Score 2212.5; k; Pred. No. 5.8e90; Mismatches 5; DB 6 Indels 77; Gaps 133 74 11;

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470 365 358 251 195 186 134 528 468 410 417 311 75 QPCDSSCPCVIAQNFCEKFCQCSSECQNRFPGCRCKAQCNTKQCPCYLAVRECDFDLCLT:||||::|||::||||||||:: EFRVKESSIIAPAPAEDVDTPPRKKKRKHRLWAAHCRKIQLKKDGSSNHVYNYQPCDHPR PIKMKPNIEPP-----ENVEWSGAEASMFRVLIGTYYDNFCAIARLIGTKTCRQVY LPNNSSRPSTPTIN-VLESKDTDSDREAGTETGGENNDKEEEEKKDETSSSSEANSRCQT PFHATPNTYKRKNTETALDNKPCGPQCYQHLEGAKEFAAALTAERIKTPPKRPGGRRRGR MGDEVLDQDGTFIEBLIKNYDGKVHGDRE----CGFINDEIFVELVNALGQYNDDD----SSLRGTRECSVTSDL-DFPTQVIFLKTLNAVASVFIMYSWSFLQQNFMVEDETVLHNIFY PTKQKASPAPPQLCVVEAPSEPVEWTGAEESLFRVFHGTYFNNFCSIARLLGTKTCKQVF HHIVSASCSNASASAVAETKEGDSDRDTG-----NDWASSSSEANSRCOT PFHATPNVYKRKNKEIKIEPEPCGTDCFLLLEGAKEYA-----MLHNPRSKCSGRRRRR DDMKERYRELTEMSDPNALPPQCTPNIDGPNAKSVQREQSLHSFHTLFCRRCFKYDCFLH BELKEKYKELTEQOLPGALPPECTPNIDGPNAKSVQREQSLHSPHTLFCRRCFKYDCFLH SGHPFLKKCTIESIFPGFASQHMLMRSLINTVALVPIMYSWSPLQQNFMVEDETVLCNIFY QDEADRRGKVYDKYMCSFLENLNNDFVVDATRKGNKIRFANHSVNPNCYAKV 699 RPCDSTCPCIMTQNPCEKFCQCNPD-----NDTSDGKQDDSKEDLPVTRKRKRHAIEGNK--KSSK--KQFPNDMIFSAIASMFPENGVP QFAVKE SLILKLPTDELMYPSQKKKKKHRLWAAHCRKIQLKKONSSTQVYNYQPCDHPD -DDDDGDDPEEREEKQKDLEDHRDDKESRPPRKFPSDKIFEAISSMFPDKGTA -LRECOPPLCLT 357 528 527 467 310 297 250 647 564 469 409

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Matches 394;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    capable of detecting 1000 or more genes from Drosophila. The invention useful in developmental biology and in elucidating cell signalling and cell-cell interactions in higher eukaryotes for the development of insecticides, therapeutics and pharmaceutical drugs. The invention discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA sequences (ABL01840-ABL16175) and the encoded proteins (ABB57737-ABB72072). The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; SEQ ID NO 14073; 21pp + Sequence Listing; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
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11-JUL-2000;
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(LIUJ/) LIU J.
(ZHOU/) ZHOU Y.
(KOVA/) KOVALIC D K.
(SCRE/) SCREEN S B.
(TABA/): TABASKA J E.
                                                                                                                                                                                                                                                                                                                                                                                plant protectant; plant growth regulant; gene therapy; plant; recombinant DNA construct; physical array; plant breeding marker; cold tolerance; heat tolerance; drought tolerance; herbicide tolerance; extreme osmotic condition; pathogen tolerance; pest tolerance; growth rate; cell cycle pathway; disease resistance; galactomannan production; lignin production; plant growth regulator; yield; plant growth; plant development; seed oil; protein yield;
                                                                                                                             06-MAY-1999;
05-NOV-2001;
                                                                                                                                                                                          28-APR-2003; 2003US-00425114.
                                                                                                                                                                                                                                      19-FEB-2004
                                                                                                                                                                                                                                                                             US2004034888-A1
                                                                                                                                                                                                                                                                                                                       Unidentified.
                                                                                                                                                                                                                                                                                                                                                            yield; plant growth; plant development; seed protein content.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  polynucleotide consisting of a sequence encoding an amino acid sequence available in electronic form from the US patent office at ftp.seqdata.uspto.gov/sequence.html?DocID:2004034888. The polynucleotide of the invention are also useful in physical arrays of molecules and as plant breeding markers. The recombinant DNA construct is useful for improving plant tolerance to cold, heat, drought, herbicides, extreme compositions, pathogens or pests, for manipulating growth rate in plant cells by modification of the cell cycle pathway, for conferring increased resistance to plant disease, for producing galactomannan, increased resistance to plant disease, for increasing the rate of homologous recombination in plants, for improving yield by modification of photosynthesis or carbohydrate, nitrogen or phosphorus use and/or uptake or by providing improved plant growth and development under at least one stress condition or for modifying seed oil or protein yield and/or content. This is the amino acid sequence of a plant full length insert polypeptide that can be used in the recombinant DNA construct of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
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RLSELKRKIQGERVRSIKEKFEANRKKV-------DAHVSP---FSSAASSRATA 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RLRQLKRFRRADEVKSM---FSSNRQKILERTEILNQEWKQRRIQPVHILTSVSSLRGTR
EVGEPIPONSVHDGGSSICOPHHGSGNGAIIIAEMSETSRP--STEWNPIEKDLYLKGVE
                                                                                                                                               KASEEECSKAVSSDVPHAAASGVSLQVEKTDIGIKNVDSSSGVEQEHGIRGKREVPILKD
                                                                                                                                                                                                                                                           KYDCFLHPFHATPNTYKRKN----TETALDNKPCGPQCYQHLEGAKE-----FAA----
                                                                                                                                                                                                                                                                                                  DASDILERYNELKLKD-----KQNTEEFSNSGFKLGISLEKGLGAALDSFDNLFCRRCL
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                                K-----DETSSSSEANSRCQTP-----IKMKPNIEPPENVEWSGAEASMFRVLIG
                                                                         SNDLPNLSNKKQKTAASDTKMSFVNSVPSLD-
                                                                                                              -GRLPNNSSRP-
                                                                                                                                                                                                                          VPDCRLHGCSQPLISASEKQPYWSDYEGDRKPCSKHCYLQLKAVREVPETCSNFASKAEE
                                                                                                                                                                                                                                                                                                                                     -----EKYKELTEQQLPGALPPECTPNIDGPNAK-SVQREQ----SLHSFHTLFCRRCF 290
                                                                                                                                                                                                                                                                                                                                                                                                                                               YTTWIFLDRNORMAE-----DOSVVGRR-----QIYYE-----OHGGETLICSDSE 197
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Pred. No. 9.6e-46;
0; Mismatches 256
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                                                                                                            STPTINVLESKOTDSDREAGTETGGENNDKEBEEK
                                                                                                                                                                                                                                                                                                                                                                         -EDSIIWLIGQEY---GMGEEVQDALCQLLSV
                                                                         -QALDSTKGDQGGTTDNKVNRDSEADAK
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761
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                                                                                                 NVSCKNCSI----QRG-------SKKHLLLAPSDVAGWGIFIKDPVQKNEFISEY
                                                                                                                                                                                          AQNECEKFCQCSSECQNRFPGCRC-KAQCNTKQCPCYLAVRECDPDLCLTCGAADHWDSK
                                                                                                                                                                                                                                                                                                                            IFGRNSCLIARNLLSGLKTCLDVSNYMRENEVSVFRRSSTPNLLLDDGRTDPGNDNDEVP
                CGEIISQDEADRRGKVYDKYMCSFLFNLANDFVVDATRKGNKIRFANHSVNPNCYAKV
                                                                            - VŚĆGDGŚLGEAPRŔĠEGQCGNMRLLLRQQQRILLGKŚDVAGWGAFLKNSVSKNEYLGEY
                                                                                                                                                          NETCCEKYCGCSKSCKNRFRGCHCAKSQCRSRQCPCFAAGRECDPDVCRNC----W---
TGELISHHEADKRGKIYDRANSSFLFDLNDQYVLDAQRKGDKLKFANHSAKPNCYAKV
                                                                                                                                                                                                                                           PRIRLFRRKGKIRKLKYSTKSÅGHPSVWKRIAGGKNQSCKQYTPCG-CLSMCGKDCPCLT
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                                                                                                                                                                                                                                                                                   -AAHCRKIQLKKDGSSNHVYNYQPCDHPRQPCDSSCPCVI
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S 뮹 δ 밁 S 밁 S 문 Ş

RESULT 12 ADT57579 18-DEC-2003; 2003US-00739930 US2004216190-A1 Viridiplantae heat tolerance; herbicide tolerance; lignin production; extreme osmotic condition tolerance; pathogens resistance; pest resistance; yield improvement; seed oil yield; seed protein yield. Plant; transgenic; cold tolerance; growth rate; disease resistance; galactomannan production; pl Plant polypeptide, 13-JAN-2005 ADT57579 28-OCT-2004. standard; (first SEQ ID protein; 7656 895 plant drought tolerance; growth regulator;

New recombinant DNA constructs useful genetics, and in particular for produc biological characteristics. producing in the field of biochemistry ring transgenic plants with im and

WPI;

2004-757369/74

Kovalic

(KOVA/)

KOVALIC D

28-APR-2003; 28-APR-2003;

2003US-00424599 2003US-00425115

Claim <u>ب</u> SEQ ID NO 7656; 14pp; English

The invention relates a recombinant DNA construct comprising a polynucleotide having any of 5544 nucleotide sequences (cDNAs SEQ ID NO: 1-5544) and encoding a polypeptide with any of 5544 amino acid sequences (SEQ ID NO: 5545-11088). The cDNAs and proteins are from corn, soybean, Arabidopsis, wheat and rape but the specification does not indicate which sequences is derived from which organism. Also included is a method of producing a plant having an improved property, comprising transforming a plant with a recombinant DNA construct comprising a promoter region functional in a plant cell operably joined to a polynucleotide encoding a polypeptide associated with the property, and growing the transformed plant. The property is selected from improving plant cold tolerance, for manipulating growth rate in plant cells by modification of the cell cycle

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C tolerance to pathogens or pests, for yield improvement by modification of compositions, for modifying seed oil yield and/or content, for content, for conditication of carbohydrate, nitrogen or phosphorus use and/or uptake c and for yield improvement by modification of carbohydrate, nitrogen or phosphorus use and/or uptake c and for yield improvement by providing improved plant growth and c development under at least one stress condition. The polynucleotide may c lase encode a plant transcription factor. The methods and compositions of the present invention are useful in the field of biochemistry and c genetics, in particular for producing transgenic plants with improved biological characteristics such as increased yield, improved nitrogen c flow, increasing plant tolerance to cold or heat, improving plant colerance to extreme osmotic and drought conditions, and improving plant tolerance to plant pests or pathogens. They can also be used in physical c arrays of molecules, plant breeding markers, computer-based storage and c analysis systems. The pescent sequence also not for part of the printed specification, but was obtained in celectronic format directly from USPTO at the sequence data for this patent did cont form part of the printed specification, but was obtained in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
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AQNFCEKFCQCSSECQNRFPGCRC-KAQCNTKQCPCYLAVRECDPDLCLTCGAADHWDS-
                                                                     VARTRIYRRGRNRKLKYTWKSAGHPTVRKRIGDGKQWYTQYNPC-VCQQMCGKDCPCVB
                                                                                                            DTPPRKKKKKHR-----LWAAHCRKIQLKKDGSSNHVY-NYQPCDHPRQPCDSSCPCVI
                                                                                                                                                                                                       I FGKNSCLI ARNILLSGMKTCMBVANYMYNNGAAMAKR PLLNKS I SGDFABTEQDYMBQDM
                                                                                                                                                                                                                                                                      TYYDNFCAIAR--LIGTKTCRQVYBFRVKBSSIIAPAP----
                                                                                                                                                                                                                                                                                                                                        ILDESTKKTSSKDI CGESPITTENVGRESKKVSSTKNFLEHTLSCWSALERDLYLKGIE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ---- EPDENKKPCGRQCYLRWRGGFQEIHDVGLSGCATYNMESGTVSHKVDVSIMSESED
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ----SLD----KTM--DAVLDSFDNLFCRRCLVFDCRLHGCSQNLVFFTEKQFYSF-
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Pred. No. 1.5e-45;
5; Mismatches 208;
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The invention relates to plant genetic engineering. More specifically, the invention relates to isolated and purified polycomb group (PcG) ge from Zea mays (maize), termed Mez1 and Mez2 (Maize $\mathbb{R}(z)$ -like 1 and 2) genes comprising a sequence of 3180 and 3030 bp respectively, defined the specification, or its conservatively modified and polymorphic variants. The PcG genes of the invention are useful in constructing recombinant expression cassettes which can be introduced into a desire

Novel polycomb group nucleic acids and polypeptides from maize useful producing transgenic plants and to repress expression or prevent the expression of a desired target gene in specific tissue in plants in vi

the in vivo.

genes in

Claim

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Fig 2B; 80pp; English

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(PION-) PIONEER HI-BRED INT INC.
(MINU ) UNIV MINNESOTA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Maize; plant; genetic engineering; polycomb group; PcG; Maize B(z)-like; transgenic; antibody; marker; crop improvement; agronomic trait; bomeotic gene expression; immunogen; screening; affinity chromatography;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-JUL-2000; 2000US-0218745P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-JUL-2001;
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- AAHCRKIQLKKDGSSNHVYNYQPCDHPRQPCDSSCPCVIAQNFCEKFCQCSSECQNRFP
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Pred. No. 4.3e-44;
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corganisms such as plants (e.g. maize, rice, sorghum, thale cross, corganisms such as plants (e.g. maize, rice, sorghum, thale cross, conditions, and wheat), cyanobacteria, bacteria, yeast and other fungi. The polymucleotide and polypeptide sequences of the invention are useful in the production of transgenic plants that have improved properties. Also disclosed are methods of producing fertile transgenic plants, preferably maize, with desired phenotypes. The polymucleotide and polypeptide commotic stress, improving plants by providing protection against osmotic stress, improving altering sugar transport and/or metabolism, modifying the cell cycle pathway, reducing plant height, modifying carbohydrate transport, improving crop productivity, improving plant growth and stress resistance, improving disease resistance, improving insect resistance, improving stalk strength, improving water stress tolerance, improving that strength, improving biotic and abiotic stress resistance, improving resistance to oxidative stress, providing control oxidative stress, providing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New polynucleotide, useful for manipulating plant protein quality, improving plant growth, yield and crop productivity or grain compo or producing plants with improved properties.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-DEC-2001; 2001US-0337358P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention relates to polynucleotide sequences, and the proteins they encode. The sequences are isolated from a variety of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 8; SEQ ID NO 599; 144pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 891
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heat tolerance; herbicide tolerance; lignin production;
extreme osmotic condition tolerance; pathogens resistan
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regulator;

New recombinant DNA constructs useful in the field of biochemistry genetics, and in particular for producing transgenic plants with it biological characteristics. and

Claim <u>ب</u> SEQ ID NO 7340; 14pp; English.

The invention relates a recombinant DNA construct comprising a polypucleotide having any of 5544 nucleotide sequences (CDNAs SEQ ID NO: 5544) and encoding a polypeptide with any of 5544 amino acid sequences (CSEQ ID NO: 5545-11088). The cDNAs and proteins are from corn, soybean, and proteins are plant cold for proteins and proteins are growning a plant toll and proteins and proteins are region and cold cold proteins and protein and proteins are region and cold proteins and plant cell operably joined to a polynucleotide encoding a cold protein and plant cell operably joined to a polynucleotide encoding a cold protein protein plant cells by modification of the cell cycle cold protein protein plant drought tolerance, for providing increased cold plant are plant drought tolerance, for proteins in plant and cold proteins are combination and plant tolerance, for improving plant tolerance to pathogens or pests, for improving plant tolerance to pathogens or pests, for light production, for improving plant tolerance to pathogens or pests, for yield improvement by modification of coldifying seed protein yield and/or content, for yield improvement by modification of coldifying seed protein yield and/or content, for yield improvement by modification of coldifying seed protein production. The polynucleotide may coldifying seed plant transcription factor. The methods and compositions of the present invention are useful in the field of biochemistry and coldification of coldification of coldification are useful in the field of biochemistry and coldification of plant tolerance to entertied and coldification and plant tolerance c drought conditions,

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Query Match Best Local S Matches 230 tolerance to plant pests or pathogens. They can also be used in physical arrays of molecules, plant breeding markers, computer-based storage and analysis systems. The present sequence is one of the 5544 plant protein sequences of the invention. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from USPTO at sequence.html?DocID=20040216190. Sequence Match 17.8%; Local Similarity 25.6%; 405 380 401 344 319 300 267 243 218 201 165 107 688 632 487 572 435 521 461 161 102 230; 76 88 16 RKRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILERTEILNQEWKQRRIQPVHILTSVS NAVASVPIMYSWSPLQQN-FWVEDETVLHNIPYMGDEVLDQDGTFIEELIKNYDGKVHGD 160 RECGFINDEIFVELVNALGQYNDDDDDDDDDDDDDDEEREEKQKDLEDH----RDDKESRPPRK 217 KKRITAD--RLTYIK--NRIGENKTNISSYTQ----RTYNLS---KNRQISTSKGTDSAS 931 AA; DSSCPCYIAQNFCEKFCQCSSECQNRFPGCRC-KAQCNTKQCPCYLAVRECDPDLCLTC-QSESSSTARVISESSDSEVHPISNKSPQHSPSPSKVKIGPKGGIRKITNRRIAERILMSV SRPSTPTINVL-ESKDTD-------MSDAVLQTLARHM--ERAADDIKARYEILHGEKTKDSCKKGTEHNVKVEDLYCDKDLDA FPSDKIFEAISSMFPDKGTAEELKEKYKELTEQQLPGALPP------ECTPNIDG TSCG----EALI-----CSDSEDEAIEDEEEKKEFKHSEDHIIRMTVQECG----PEVPKLPPYTTWIFLDRNQRMTEDQSVLGR-----SLRGTRE----CSVTSDLDF------PTQVI--PLKTL -GAAD------HWDSKNVSCKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNEFISEY GKQCPCLSNGTCCEKYCGCPK1CKNRFRGCHCAKSQCRSRQCPCFAADRECDPDVCRNCW IKGTELRTRSRYFRRRGKVRRLKYTWKSAGYNFKRİTERKDQPCR---QYNPCG-CQSTC ---TPPRKKKKKKK-----LWAA---HCRKIQLKKDGSSNHVYNYQPCDHPRQPC I EQGLL VKGLEIFGRNSCLIARNLLGGMKTCKDVFQYMNYIENNSASGALSGVDSLVKGY AEASMFRVLIGTYYDNFCAIAR--LIGTKTCRQVYEFRVKESSIIAPAPAEDVD-----NSSAFAEAHNDSTEEANNRHSATDGYDSSRKEEFVNENLCKQEVYLR-----SWKA 571 KKGQREMASSDSNFVSGYLLARDMKLRSDTRNGNKELIVSSQQSSPSTRSSKKKSTPQIG 520 PCGPQCYQHLEGAKEFAAALTAER----IKTPP-----KRPGGRRR-----GRLPNNS 362 PNAKSVQREQSLHSFHTLFCRRCFKYDCFLH-----PFHATPNTYKRKNTETALDNK 318 VGCGDGTLGVPNQRGDNYECRNMKLLLKQQQRVLLGRSDVSGWGAFLKNSVSKHEYLGEY -----COTPINMKPNIEPPENVEWSG 434 ----SD-----REAGTETGGENNDKE------EBEKKOET----PCGIHCHKL---ASEPDAAAGADHMLFDVEEPTHSSDNVMNQPGSNRKKNGSSGRKTKSQ 400 -----ALDSPDNLPCRRCLVFDCKLHGCSQDLVFP-----TEKQPAWSGVDDSV 343 Conservative 116; Score 677; DB 8; Pred. No. 1.8e-42; Mismatches 248; Indels 304; Length 931; -----RRIYYD Gaps 101 460 299 266 164 106 242 200 641 747 530 631 486 404 379 75

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RESULT 1 G02838 enhancer-of C; Species: C; Date: 21- C; Accession R; Antonarak submitted t A; Reference A; Accession A; Status: p A; Molecule A; Residues: A; Cross-ref C; Genetics: A; Gene: GDB A; Cross-ref A; Map posit		44 5	43	41	40	39	38 '	36	35	34	33	32	31	30	
RESULT 1 G02838 G02838 G:Species: Homo sapiens (man) C;Date: 21-Dec-1996 #sequence_r C;Accession: G02838 R;Antonarakis, S.E. submitted to the EMBL Data Libr A;Reference number: H01746 A;Accession: G02838 A;Accession: G02838 A;Accession: G02838 A;Accession: G02838 A;Accession: H01746 A;Cossion: G02838 A;Status: preliminary; translat A;Molecule type: mRNA A;Residues: 1-746 <ant' 21q22.2-21q22.2<="" a;cossion:="" a;cross-references:="" a;gene:="" a;map="" c;genetics:="" ezh1="" gdb:701613;="" gdb:ezh2;="" position:="" q15="" td="" teterences:="" uniprot:=""><td></td><td>158 155</td><td>159</td><td>160.5</td><td>161</td><td>161</td><td>162.5</td><td>172</td><td>174.5</td><td>174.5</td><td>175</td><td>175.5</td><td>176</td><td>179</td><td></td></ant'>		158 155	159	160.5	161	161	162.5	172	174.5	174.5	175	175.5	176	179	
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RESULT 1 G02838 G02838 c;Species: Homo sapiens (man) C;Species: Homo sapiens (man) C;Date: 21-Dec-1996 #sequence_revision 06-Jun-1997 #text_change 09-Jul-2004 C;Accession: G02838 C;Accession: H01746 submitted to the EMBL Data Library, February 1996 A;Reference number: H01746 A;Reference number: translated from GB/EMBL/DDBJ A;Status: preliminary; translated from GB/EMBL/DDBJ A;Status: preliminary; translated from GB/EMBL/DDBJ A;Status: preliminary; translated from GB/EMBL/DDBJ A;Cross-references: UNIPROT:Q15910; UNIPARC:UPI000016B348; EMBL:X95653; NID:g1438063 C;Genetics: A;Gene: GDB:EZH2; EZH1 A;Cross-references: GDB:701613; OMIM:601573 A;Map position: 21q22.2-21q22.2	ENTS	probable SET-domai junctional sarcopl	hypothetical prote	hypothetical prote	protein C43E11.3 [neurofilament prot	ALR protein homolo	hypothetical proce			•			hypothetical prote	

Guery Match 99.9%; Pred. No. 2.6e-222; Best Local Similarity 99.9%; Pred. No. 2.6e-222; Matches 69%; Conservative 0; Mismatches 1; Indels 0; Gaps 0; 1 MGQTGKKSEKGPVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILERTEILNQEW 60 1 MGQTGKKSEKGPVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILERTEILNQEW 60 61 KQRRIQPVHILTSVSSLRGTRECSVTSDLDFPTQVIPLKTLNAVASVPIMYSWSPLQQNF 120 61 KQRRIQPVHILTSVSSLRGTRECSVTSDLDFPTQVIPLKTLNAVASVPIMYSWSPLQQNF 120 121 MVEDETVLHNIPYMGDEVLDQDGTFIEELIKNYDGKVHGDRECGFINDEIFVELVNALGQ 180 121 MVEDETVLHNIPYMGDEVLDQDGTFIEELIKNYDGKVHGDRECGFINDEIFVELVNALGQ 180 181 YNDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDEREREKQKDLEDHRDDKESRPFRKFPSDKIFEAISSMFFDKGTAEEL 240 181 YNDDDDDDDDDDDDDDEREREKQKDLEDHRDDKESRPFRKFPSDKIFEAISSMFFDKGTAEEL 240 181 YNDDDDDDDDDDDDEREREKQKDLEDHRDDKESRPFRKFPSDKIFEAISSMFFDKGTAEEL 240 181 YNDDDDDDDDDDDDEREREKQKDLEDHRDDKESRPFRKFPSDKIFEAISSMFFDKGTAEEL 240 181 YNDDDDDDDDDDDDDEREREKQKDLEDHRDDKESRPFRKFPSDKIFEAISSMFFDKGTAEEL 240 181 YNDDDDDDDDDDDDEREREKQKDLEDHRDDKESRPFRKFPSDKIFEAISSMFFDKGTAEEL 240 241 KEKYKELTEQQLPGALPPECTFNIDGFNAKSVQREQSLHSFHTLFCRRCFKYDCFLHPFH 300 301 ATPNITYKKNITETALDNKFCGPOCYQHLEGAKEFAAALTAERIKTFPKRPGGRRRGRLPN 360 301 ATPNITYKRNITETALDNKFCGPOCYQHLEGAKEFAAALTAERIKTFPKRPGGRRRGRLPN 360 301 MSSRPSTFTINVLESKOTDSDREAGTETGGENNDKEEEEKKOETSSSSEANSRCQTFPIKM 420 361 NSSRPSTFTINVLESKOTDSDREAGTETGGENNDKEEEEKKOETSSSSEANSRCQTFPIKM 420 421 KPNIEPPENVEWSGAEASMFRVLIGTYYDDNFCAIARLIGTKTCRQVYEFRVKESSIIAPA 480	ঠ	뫄	Ş	뫄	ৡ	Db	ş	ДĎ	Ş	рb	ठ	Дg	Ş,	뮍	S S	3 t	ø Q
99.8%; Score 3802; DB 2; Length 746; 99.9%; Pred. No. 2.6e-222; 99.9%; Pred. No. 2.6e-222; 99.9%; Pred. No. 2.6e-222; 1 Indels 0; Gaps KGPVCWRKRVKSBYMFLRQLKRFRRADEVKSMFSSNRQKILERTEILNQEW 60		•				•		•				•		1 MGQTG		nes 698;	
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RESULT 2
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polycomb protein EZA1 [imported] - Arabidopsis thaliana
polycomb protein EZA1 [imported] - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 24-Oct-2000 #sequence_revision 24-Oct-2000 #text_change (
C;Accession: T52415
R;Bilodeau, P; Luo, M.; Dennis, E.S.; Peacock, W.J.; Chaudhury,
Rpsilodeau, P; Luo, M.; Dennis, B.S.; Peacock, W.J.; Chaudhury,
Submitted to the EMBL Data Library, October 1998
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A;Accession: T52415
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-856 <BIL>
A;Cross-references: UNIPROT:Q9ZSM8; UNIPARC:UPI00000A5399; EMBL;AF100163; PIDN:AAD09108
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                     K----DETSSSSEANSRCQTP----
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                                                                  SNDLPNLSNKKOKTAASDTKMSFVNSVPSLD--QALDSTKGDQGGTTDNKVNRDSEADAK
                                                                                                                                                          KASEEECSKAVSSDVPHAAASGVSLQVEKTDIGIKNVDSSSGVEQEHGIRGKREVPILKD
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T01503
hypothetical protein T10M13.3 - Arabidopsis thaliana
hypothetical protein T10M13.3 - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 19-Feb-1999 #sequence_revision 19-Feb-1999 #text
C;Accession: T01503
C;Accession: A.F; de la Bastide, M.; Lodhi, M.; Hoffman,
R;JOhnson, A.F; de la Bastide, M.; Lodhi, M.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RISELKRKIQGERVRSIKEKFEANRKKV-------DAHVSP---FSSAASSRATA 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KYDCFLH-----
                                                                                                                                                                                                                                                  DDPEEREEKOKDLEDHRODKESRPPRKFPSDKIFEAISSMFPDKGTAEELK------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AQNFCEKFCQCSSECQNRFPGCRC-KAQCNTKQCPCYLAVRECDPDLCLTCGAADHWDSK 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    I FGRNSCLIARNLLSGLKTCLDVSNYMRENEVSVFRRSSTPNLLLDDGRTDPGNDNDEVP
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                          VFDCRLHGCSQPLISALKAVREVPETC--SNFASKAEEKASEEECSKAVSSDVPHAAASG
                                                                                                                  DASDILERYNBLKLKD
                                                                                                                                                                                                         EEPEPEEKKEPSEG
                                                                                                                                                                                                                                                                                                                                            YMGDEVLDQDGTFIBELIKNYDGKVHGDRECGFINDEIFVELVNALGQYNDDD--DDDDG
                                                                                                                                                                                                                                                                                                                                                                                            EDNGNSNMLSSRMRMPLCKLING-
                                                                                                                                                                                                                                                                                                                                                                                                                                    ECSVTSDLDFPTQVIPLKTLNAVASVPIMYSWSPLQQNFMVEDETVLHNI------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RLRQLKRFRRADEVKSM----FSSNRQKILERTEILNQEWKQRRIQPVHILTSVSSLRGTR 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -VSCGDGSLGEAPRRGEGQCGNMRLLLRQQQRILLGKSDVAGWGAFLKNSVSKNEYLGEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NVSCKNCSI ---- QRG---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIRLPRRKGKTRKLKYSTKSÅGHPSVWKRIAGGKNQSCKQYTPCG-CLSMCGKDCPCLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PR----KKKRKHRLW-----AAHCRKIQLKKDGSSNHVYNYQPCDHPRQPCDSSCPCVI 538
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                                                                                                                                                                                                                                                                                                    YTTWIFLDRNQRMAE-----DQSVVGRR-----QIYYE-----QHGGETLICSDSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18.5%;
ilarity 27.9%;
Conservative 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              83/1; 118/3; 207/2; 260/2; 288/3;
                                                                                                                                                          -exykelteqqlpgalppectpnidgpnak-svqreq----sihsphtlfcrecp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5%; Score 704.5; DB 2;
9%; Pred. No. 5.1e-35;
108; Mismatches 259;
                                                                                                                  -----KQNTEEFSNSGFKLGISLEKGLGAALDSFDNLFCRRCL
                                                                  -PFHATPNTYKRKNTETALDNKPCGPQCYQHLEGAKEFAAA--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        , May 1997
Arabidopsis
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                                                                                                                                                                                                            -EDSIIWLIGQEY---GMGEEVQDALCQLLSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL: AF001308; NID: g2104523;
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A;Experimental source: Cultivar Columbia

R;Lin, X.; Kaul, S.; Rounsley, S.D.; Shea, T.P.; Benito, M.I.; Town, C.D.; Fujii, C.Y.

M.; Koo, H.; Moffat, K.S.; Cronin, L.A.; Shea, M.; Vanaken, S.E.; Umayam, L.; Tallon, I

euss, D.; Nierman, W.C.; White, O.; Risen, J.A.; Salzberg, S.L.; Fraser, C.M.; Venter,

Nature 402, 761-768, 1999

A;Title: Sequence and analysis of chromosome 2 of the plant Arabidopsis thaliana.

A;Reference number: A84420; MUID:20083487; PMID:10617197

A;Accession: A84624

A;Status: preliminary

A;Molecule type: DNA

A;Residues: 1-902 <STO-

A;Cross-references: UNIPARC:UPI00000A76B5; GB:AE002093; NID:93242729; PIDN:AAC23781.1;
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            curly leaf protein (polycomb-group) (imported) - Arabidopsis thaliana N;Alternate names: curly leaf protein homolog F2686.3 C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 12-Feb-1999 #sequence_revision 12-Feb-1999 #text_change 02-Feb-2001 C;Accession: T01127; A84624 R;Rounsley, S.D.; Kaul, S.; Lin, X.; Ketchum, K.A.; Crosby, M.L.; Brandon, R. submitted to the EMBL Data Library, June 1998 A;Description: Arabidopsis thaliana chromosome II BAC F2686 genomic sequence.
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                                                                                                                                        A;Gene: At2g23380; F26B6
A;Map position: 2
A;Introns: 21/3; 52/3; 1
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A; Accession: T01127
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Matches 230
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                                                                                           Similarity
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     ERGPA--SKEVSEVIESLKKKLAADRCISIKKRIDENKKNLFAITQSFMR---
                                    EKGPVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILERTEILNQEWKQRRIQPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RC-KAQCNTKQCPCYLAVRECDPDLCLTCGAADHWDSKNVSCKNCSI----QRG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MRLLLRQQQRILLGKSDVAGWGAFLKNSVSKNEYLGEYTGELISHHEADKRGKIYDRANS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----IKMKPNIEPPENVEWSGAEASMFRVLIGTYYDNFCAIAR--LIGTKTCRQ
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                                                                                                                                        52/3; 153/2; 207/2; 235/3; 280/3; 296/3; 320/3; 554/2;
                                                                          Conservative
                                                                        17.8%; Score 679.5; DB 2; 25.5%; Pred. No. 1.7e-33; ive 107; Mismatches 269;
                                                                       107;
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                                                                                                         Length 902;
                                                                        Indels
                                                                       295;
                                                                        Gaps
                                                                                                                                            604/3;
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submitted to the EMBL Data Library, November A;Reference number: Z19421
A;Accession: T21436
A;Status: preliminary; translated from GB/EMB A;Molecule type: DNA
A;Residues: 1-775 <WILD-
A;Cross-references: UNIPARC:UPI000017BAFD; EM
A;Experimental source: clone F26H11
R;Barlow, K.
                                                                                                              hypothetical protein R06A4.7 - Caenorhabditis C;Species: Caenorhabditis elegans C;Date: 15-Oct-1999 #sequence_revision 15-Oct-C;Accession: T21436; T23953 R;Barlow, K.
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A;Molecule type: mRNA
A;Residues: 1-689 <GRO>
A;Crose-references: UNIPROT:065312;
C;Genetics:
A;Gene: MEA
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|$; Pred. No. 1.5e-29;
100; Mismatches 197
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                                   EMBL: Z81515; PIDN: CAB04199.1; GSPDB: GN00020;
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A;Map position: 2
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A;Reference number: Z19822
A;Accession: T23953
A;Status: preliminary; translated from GB/I
A;Molecule type: DNA
A;Residues: 1-775 <WIZ>
A;Cross-references: UNIPARC:UPI000017BAFD;
A;Experimental source: clone R05A4
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|DEAERRGAIYDRYQCSYIFNIETGGAIDSYKIGNLARFANHDSKNPTCYAR
                     QDEADRRGKVYDKYMCSFLFNIANDFVVDATRKGNKIRFANH-SVNPNCYAK
                                                                              C-KCDAIDSNIIKCRNFGMTRMIQKRTYCGPSKIAGNGLFLLEPAEKDEFITEYTGERIS
                                                                                                                     CGAADHWDSKNVSCKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNBFISBYCGEIIS
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nilarity 24.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                                          -----KKYVDEDDEESKIRSCRDAYHLM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Score 519; DB 2
; Pred. No. 7e-24;
84; Mismatches 2
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                                                                                                                                                                                                                                                                                                                                            -RLSIKDRVNNFRR-----NQLSQEKAKRK
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RESULT 7

T41282

probable transcription silencing protein - fission yeast (Schizosaccharomyces pombe)

C;Species: Schizosaccharomyces pombe

C;Species: Change 09-Jul-2004

R;Murphy, L.; Harris, D.; Wood, V.; Rajandream, M.A.; Barrell, B.G.

submitted to the EMBL Data Library, April 1999

A;Reference number: Z21984

A;Accession: T41282

A;Status: preliminary; translated from GB/EMBL/DDBJ

A;Molecule type: DNA
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A;Residues: 1-920 <MUR>
A;Cross-references: UNIPS
A;Experimental source: 81
C;Genetics:
A;Gene: SPDB:SPCC306.04c
A;Map position: 3
RESULT 8
348961
hypothetical protein YHR119w - yeast (Saccharomyces cerevisiae)
hypothetical protein YHR119w - yeast (Saccharomyces cerevisiae
C;Species: Saccharomyces cerevisiae
C;Date: 02-Dec-1994 #sequence_revision 02-Dec-1994 #text_change
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Best Local S
Matches 170
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                                                                                                                               DATRKGNKIRFANHSVNPNCYAKV
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                                                                                                              DATKKGNIARFINHSCAPNCIARI
                                                                                                                                                                      PSRIHTLGLFAMENI DKNDMVI BYI GET I RORVADNREKNYVREGI GDSYLFRI DEDVIV
                                                                                                                                                                                      PSDVAGWGIFIKDFVQKNEFISEYCGEIISQDEADRRGKVY--DKYMCSFLFNLNNDFVV
                                                                                                                                                                                                                                                             PDLCLTCGAADHWDSKNVSCKN---
                                                                                                                                                                                                                                                                                                                     PCDHPRQPCDSSCPCVIAQNFCEKFCQCSSECQNRFPGCRCKAQCNTKQCPCYLAVRECD
                                                                                                                                                                                                                                                                                                                                                     DYSYLQEALKDBPLMDINDP-----NFWAYERKSCKFK-----NGDVKYGDTAILPE
                                                                                                                                                                                                                                                                                                                                                                                                              KEIDEVLALAPKWRINEFDETGSVYYGALPYNYPEDDVLLDLDG-----LQYLVKNDE
                                                                                                                                                                                                                                                                                                                                                                                                                                            ENVEWSGAEASMFRV-----LIGTYYDNFCAIARLIGTKTCRQVYEFRVKE--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ENDKFHRFRTKSKISKKKYEKMEVDYTSSSETESDASILSPSAAIPKSGSAIKDELISPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DSDREAGTETGGENNDKEEEEKKDETSSSSEANSRCQ--TPIKMKPN-----IEPP
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Pred. No. 3.1e-06;
7; Mismatches 268;
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C;Accession: $48961

R;Latreille, P.

submitted to the EMBL Data Library, May 1994
A;Description: The sequence of S. cerevisiae co
A;Reference number: $46676
A;Accession: $48961
A;Molecule type: DNA
A;Residues: 1-1080 <LIAT>
A;Cross-references: UNIPROT: p38827; UNIPARC: UPI
C;Genetics:
A;Gene: SGD:SET1
A;Cross-references: SGD:S0001161; MIPS:YHR119w
A;Map position: 8R
trithorax homolog HTX, version 2 - human N;Alternate names: acute lymphoblastic leukemia gene 1 protein C;Species: Homo sapiens (man) C;Date: 30-Apr-1993 #sequence revision 18-Nov-1994 #text_change C;Accession: A44265; A44264; T58112; I37165; I38485 R;Tkachuk, D.C.; Kohler, S.; Cleary, M.L. Cell 71, 691-700, 1992
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Best Local Similarity
Matches 136; Conserv
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                                                                                                                                                                                       QDEADRRGKVYDK--YMCSFLFNLANDFVVDATRKGNKIRFANHSVNPNCYAKV
                                                                                                                                                                                                                                                             CGAADHWDSKNVSCKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNBFISBYCGBIIS
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                                                                                                                                                                                                                                --AAIGTESELLSLNQLNKR---KKEVMFARSAIHNWGLYALDSTAAKEMIIEYVGERIR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KSNKRNILKRHNSLALDHTSLKRKKLS-----NGIKPMAHLLNEB-------
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GRIPHNSSRPSTPTIN---VLESKOTDSDREAGTETGGENNDKEEEEKK------
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KYKBLTBQQLPGALPPECTPNIDGPNAKSVQRBQSLHSPHTLFCRRCFKYDCF-LHPFHA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 228.5; 1
Pred. No. 3.6e
82; Mismatches
                                                                                                                                                                                                                                                                                             -EVSSSRDNRASNRRFQQDIEAQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MIPS:YHR119w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         UNIPARC: UPI0000052FF6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cosmid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .6e-06;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 177;
                                                                              (ALL-1)
                                                09-Jul-2004
                                                                                                                                                                        1027
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Cell 7, 691-700, 1992
A;Title: Involvement of a homolog of Drosophila trithorax A;Reference number: A44265; MUID:93046667; PMID:1423624
A;Accession: A44265
A;Status: nucleic acid sequence not shown; not compared wi

with

conceptual

translation

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11q23

chromosomal

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Cell 71, 701-708, 1992
A;Title: The t(4;11) chromosome translocation of human acute leukemias fuses the ALL-1 a A;Reference number: A44264; MUID:93046668; PMID:1423625
A;Reference number: A44264
A;Reference number: A4264
A;Reference number: A4264
A;Reference number: A554, YN, 3556-3594, YV, 3596-3899, YA, 3901-3968 <GUID-546, GLLINSELEK', 327, YQ', 329, YR', 332, DEEGTPP', 340, YT', 342, EDKTVRQSPRR A;Residuses: 63-316, GLLINSELEK', 327, YQ', 329, YR', 339, DEEGTPP', 340, YT', 342, EDKTVRQSPRR A;Residuses: 63-316, GLLINSELEK', 327, YQ', 329, YR', 339, DEEGTPP', 340, YT', 342, EDKTVRQSPRR 546, CALINSELEK', 327, YQ', 329, YR', 339, DEEGTPP', 340, YT', 342, EDKTVRQSPRR 546, CALINSELEK', 327, YQ', 329, YR', 339, DEEGTPP', 340, YT', 342, EDKTVRQSPRR 546, CALINSELEK', 327, YQ', 329, YR', 339, DEEGTPP', 340, YT', 342, EDKTVRQSPRR 546, PROCESSEL SEARCH STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD S
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C;Superfamily: histone methyltransferase, trithorax protein type
C;Kupwords: acute lymphoblastic leukemia; proto-oncogene; zinc fi
F;1434-1456/Region: zinc finger CCHC motif
F;1479-1506/Region: zinc finger CCHC motif
F;1527-1556/Region: zinc finger CCHC motif
F;1569-1596/Region: zinc finger CCHC motif
F;1693-1906/Region: zinc finger CCHC motif
F;1933-1955/Region: zinc finger CCHC motif
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A,Title: Sequence analysis of the breakpoint cluster region in A,Reference number: I38485
A,Reference number: I38485
A,Accession: I38485
A,Status: preliminary; translated from GB/EMBL/DDBJ
A,Molecule type: DNA
A,Residues: 1251-1486,'G',1488-1538 <RES>
A,Cross-references: UNIPARC:UPI000016A07B; EMBL:U04737; NID:g45:C,GenetLcs:
C,GenetLcs:
A,Gene: GDB.MLL; HTX; ALL-1; HRX
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A;Cross-references: UNIPROT:Q03164; UNIPARC:UPI000017C3FD; GB:L04284; NID:g184393; PIDN:A;Cross-references: UNIPROT:Q03164; UNIPARC:UPI000017C3FD; GB:L04284; NID:g184393; PIDN:A;Note: sequence extracted from NCBI backbone (NCBIP:117729)
A;Note: sequence extracted from NCBI backbone (NCBIP:117729)
R;Gu, Y.; Nakamura, T.; Alder, H.; Prasad, R.; Canaani, O.; Cimino, G.; Croce, C.M.; Car Cell 71, 701-708, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: GDB:128819; OMIM:159555
A;Map position: 11q23-11q23
A;Introns: 1338/1; 1362/3; 1406/3; 1444/3; 1493/3;
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Best Local Sim
Matches 116;
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                                                                                                                                                                                                                                                                                                                                                          RDDKESRPPRKFPSDKIFEAISSMFPDKGTAE------
                                                                                                 HSPHTLFCRRCFKYDCFLHPFHATPNTYKRKNTETALDNKPCGPQCYQHLEGAKEFAAAL 338
                                                                                                                                                             PSGEADEHYQLQHVNQLLASKTGIHSSQRDLDSASGPQVSNFTQTVDAPNSMGLEQNKAL
                                                                                                                                                                                                                                                                                          QDQPVALPPS-----SGMFPQLGTSQTPSTAAITAASSICVLPSTQTTGITAAS
                                                                                                                                                                                                                                                                                                                                                                                                                      6.0%;
llarity 18.4%;
Conservative 8
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                                                                                                                                                                                                                                                                                                                                                                                                                      Score 228; DB 2;
Pred. No. 1.6e-05;
0; Mismatches 190
                                                                                                                                                                                                                             --ELTEQQLPGALPPEC---TPNIDGPNAKSVQREQSL 278
                                                                                                                                                                                                                                                                                                                                                                                                                         190;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 3968;
                                                                                                                                                                                                                                                                                                                                                                                                                         Indels 246;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NID:g451554; PID:g451555
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                                    ----S
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3885 RIDDSEVVDATMHGNRARFINHSCEPNCYSRV 3916
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                                                                                                                                                                                                                                                                            549
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                                                                                                          TSKEAVGVYRSPIHGRGLFCKRNIDAGEMVIEYAGNVIRSIQTDKREKYYDSKGIGCYMF
                                                                                                                                                        GSKKHLLLAPSDVAGWGIFIKDPVQKNEFISBYCGEIISQDEADRRGKVYD-KYMCSFLF 667
                                                                                                                                                                                                                                                                                                                                                                                                                                             LKQLSFAGVNGLRMLGILHDAVVFLIEQLSGAKHCKN-YKFRFHK------PEBANEP 3755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EEEEKKDETSSSSEANSRCQTP---IKMKPNIE------PPENVB-----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LMLWLQQEQKRKESITEKKPKKGLVFEISSDDGFQICAESIEDAWKSLTDKVQEARSNAR 3704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ARARQQDTASLEQSSQKECGQPAGQVAVLPEVQVTQNPANEQESAEPKTVEEEESNFSSP 3644
                                                 NLNNDFVVDATRKGNKIRFANHSVNPNCYAKV
                                                                                                                                                                                                                                                                      CSSECONRFPGCRCKAQCNTKQCPCYLAVRECDPDLCLTCGAADHWDSKNVSCKNCSIQR 608
                                                                                                                                                                                                                                                                                                                                PLNPHGSARA-EVHLRK-----SAFDMFNFLASKH-RQP----PEYNPNDEBEBEVQ 3801
                                                                                                                                                                                                                                                                                                                                                                                    PRKKKKKHRLWAAHCRKIQLKKDGSSNHVYNYQPCDHPRQPCDSSCPCVIAQNFCEKFCQ 548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ---WSGARAS-
                                                                                                                                                                                                                  ----ARRATSMDLPMPMRFRH-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LIGTYYDNFC-AIARLIGTKTCRQVYEFRVKESSIIAPAPAEDVDTP 488
                                                   699
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ashi protein - fruit fly (Drosophila melanogaster)
C;Species: Drosophila melanogaster
C;Date: 12-Feb-1998 #sequence revision 13-Mar-1998 #text_change 09-Jul-2004
C;Accession: S71490; S78442
R;Tripoulas, N.; LaJeunesse, D.; Gildea, J.; Shearn, A.
Genetics 143, 913-928, 1996
A;Title: The Drosophila ashi gene product, which is localized at specific si
A;Reference number: S71490; MUID:96363924; PMID:8725238
A;Accession: S71490
                                                                                                                                                                                                                                                                                                 A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-119',V',121-611,'X',613-2144
A;Cross-references: UNIPARC:UPI000017BE7B;
                                                                                                                                                                                                                                                                                                                                                                                                                                        R;Tripoulas, N.; Shearn, A. submitted to the EMBL Data Library,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: DNA
A; Residues: 1-2144 < TRI>
                                                                                                                                                                                                                                A; Introns: 1592/3; 2083/1
                                                                                                                                                                                                                                                                                                                                                                                             A; Reference number: S78442
A; Accession: S78442
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                                                                                                                                  Best Local Sin
Matches 124;
                                                                                                                                                                                                                                                                              Genetics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cross-references: UNIPROT:Q24189;
                                                                                                                                                                                Query Match
                                                                                         241 KEKYKELTEQQLPGAL---PPECTPNIDGPNAKSVQREQSLHSFHT-----LFCRRCF
                                                                                                                                                               Similarity
KYDCFLHPFHATPNTYKRKNTETALDNKPCGPQCYQHLEGAKEFAAALTAERIKTPPKRP
                                             RKKRKVSVEQQTTAVIDEHEPEPDP--DDEPLQSLRETRSSNNVNVQAAPNPPLDCER--
                                                                                                                                    Conservative
                                                                                                                                                            5.9%;
                                                                                                                                    64;
                                                                                                                                                          Score 226.5; DB
Pred. No. 1e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                             February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        UNIPROT:Q9VW15; UNIPARC:UPI000017BE7A; EMBL:U49439
                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                   <TR2>
EMBL: U49439
                                                                                                                                                                                    DB 2;
                                                                                                                                       189;
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                                                                                                                                         Indels
                                                                                                                                                                                       2144;
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poly

351

GGRRRGRLPNNSSR-----PSTPTINVL---

--ESKDTDSDREAGTETGGENNDKB

----LSVVALĖKLQRĖQTPA 981

---VPQAGEARETFVARTNQK-APR

A8205 All1 protein +GTE form - mouse (fragment) C;Species: Mus musculus (nouse mouse) C;Species: Mus musculus (nouse mouse) C;Accession: A8205; B48205 C;Accession: A8205; B48205 C;Accession: A8205; B48205 C;Accession: A8205; B48205 C;Accession: A8205; B48205 C;Accession: A8205; B48205 C;Accession: A8205; Musculus (N.S.) o. 6350-6354, 1993 A;Title: Analysis of the murine All-1 gene reveals conserved domains with human ALL-1 ar A;Reference number: A48205; MUD:93317679; PMID:8327517 A;Accession: A48205 A;Accession: A48205 A;Accession: B48205 A	Db 982 RGRPRGKKPKNREQAEAAPQPPPKSEPEIRPAKKRGROPKOPVLEEPPPDQXCKNRM 1041 Oy 397 BEEKKOETSSSSEANSRCQTFIKMKENIE
RESULT 12 HB8444 Protein C26B6.12 [imported] - Caenorhabditis elegans C;Decise; Caenorhabdits elegans C;Decise; Caenorhabdits elegans C;Decise; Caenorhabdits elegans C;Date: 10-May-2001 #sequence_revision 10-May-2001 #text_change 10-May-2001 C;Accession: H88444 R;anonymous, The C. elegans sequencing Consortium. Science 282, 2012-2018, 1998 S;Title: Genome sequence of the nematode C. elegans; a platform for investigating biol. A;Reference number: A75000, WIDD:99056513; PMID:9951916 A;Anote: see websites genome wustledwigsc/C_elegans/ and www.sanger.ac.uk/Projects/C_elegans/ and www.sanger.ac.uk/Projects	Qy 337 ALTAERIKTPPKRPGGRR

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unknown protein F28016.8 [imported] - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 09-Jul-2004
C;Accession: B96795
R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.,
Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dt
ansen, N.P.; Hughes, B.; Huizar, L.
Nature 408, 816-820, 2000
A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, B.;
C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; N
Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.;
ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.
A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.
A;Reference number: A86141; MUID:21016719; PMID:11130712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 13
E96795
                                                                                                                                                                                                                                    A; Molecule type: DNA
A; Residues: 1-528 <STO>
                                                                                                                                                                                                            A;Cross-references: UNIPROT:Q9SRE2; UNIPARC:UPI00000A4C99; GB:AE005173; NID:g6143888;
                                                                                                                                                                                                                                                                             A; Status: preliminary
                                                                     Query Match
Best Local
                                                                                                                                                                 Gene: F28016.8
                                                                                                                                                                                       Genetics:
                                                                        Local Similarity
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    HVY--NYQPCDHPRQPCDSSCPCVIAQNFCEKFCQCSSECQNRPPGCRCKAQCNTKQCPC
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                                                  Conservative
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                                                                     5.8%;
                                                  27;
                                                ; Score 219; DB
; Pred. No. 6.3e
27; Mismatches
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                                                                        6.3e-06;
                                                                                             Length 528
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Maiti, R.; Marziali
                                                  Gaps
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: Dewar, K.
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A;Title: Genome sequence the nematode C. elegans: a platform for investigating biold A;Reference number: A75000; MUID:99069613; PMID:9951916
A;Rote: see websites genome.wustl.edu/gsc/C_elegans/ and www_sanger.ac.uk/Projects/C_elegans/ epublished errata appeared in Science 283, 35, 1999; Science 283, 2103, 1999; at A;Accession: A88445
A;Status: preliminary
A;Molecule type: DNA
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A88445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R;Bentley, D. submitted to the EMBL Data Library, September 1995 submitted to the EMBL Data Library, September 1995 submitted to the EMBL Data Library, September 1995 submitted to the sequence of C. elegans cosmid K
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T16601
F16601

ROPF5.5 - Caenorhabditis elegans
hypothetical protein K09F5.5 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #t.
C;Accession: T16601
                                                                                                                                                                                                               protein C2686.10 [imported] - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 10-May-2001 #sequence_revision 10-May-2001 #text_change 09-Jul-2004
C;Accession: A88445
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A; Accession: T16601
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A; Introns: 25/3;
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A;Experimental source: strain Bristol N2; clone K09F5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Molecule type: DNA
A; Residues: 1-408 <BEN>
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Best Local (
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Pred. No. 1.7e-05;
2; Mismatches 78
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Search completed: August 11, 2006, 22:29:11 Job time: 32.573 secs
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A;Cross-references: UNIPROT:Q18221; UNIPARC:UPI000007A0F6; GB:Chr_III; PIDN:AAA21163.1; C;Genetics:
A;Gene: C26B6.10
A;Map position: 3
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                                                                                                                                                               653
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SUMMARIES

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-!- FUNCTION: May be involved in the regulation of gene transcription

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GO; GO:0003677; F:DNA binding; TAS.
GO; GO:0006325; P:establishment and/or maintenance of chromat. . .
GO; GO:0006325; P:regulation of transcription, DNA-dependent; TAS.
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-!- SUBUNIT: Binds ATRX via the SET domain (Probable).
-!- SUBCELLULAR LOCATION: Nucleus (Probable).
-!- TISSUS SPECIFICITY: Expressed in many tissues.
-!- SIMILARITY: Belongs to the EZ family.
-!- SIMILARITY: Contains 1 SET domain.
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EMBL; U61145; AAC51520.1; -; mRNA.
EMBL; U52965; AAC50591.1; -; Genom
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ensembl; ENSG00000106462; HGNC; HGNC:3527; EZH2.
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InterPro; IPRO01214; SET.
Pfam; PF00856; SET; 1.
SMART; SM00717; SENT; 2.
SMART; SM00717; SENT; 1.
SMART; SM00317; SET; 1.
PROSITE; PS50280; SET; 1.
SEQUENCE 746 AA; 85333;
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19-JUL-2005, sequence version 1.
07-FBB-2006, entry version 5.
Testis cDNA clone: QteA-18821, similar to human enhancer of zeste homolog 2 (Drosophila) (EZH2), transcript variant 2,
Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Euarchontoglires; Primates; Catarrhini;
Cercopithecidae; Cercopithecinae; Macaca.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; AB179385; BAE02436.1; -; mRNA. GO; GO:0005634; C:nucleus; IEA. GO; GO:0003677; F:DNA binding; IEA. InterPro; IPR001005; Myb_DNA_bd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Copyrighted by the UniProt Consortium, see http://www.uniprot.org/terms Distributed under the Creative Commons Attribution-NoDerivs License
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PubMed=15944441; DOI=10.1093/molbev/msi187; Osada N., Hirata M., Tanuma R., Kusuda J., Hida M., Suzuki Y., Osada N., Hirata M., Tanuma R., Kusuda J., Hida M., Suzuki Y., Osugano S., Gojobori T., Shen C.-K.J., W C.I., Hashimoto K.; Sugano S., Gojobori T., Shen C.-K.J., W C.I., Hashimoto K.; Sugano S., Gojobori T., Shen C.-K.J., Burnari S., Walley Collabority Substitution Rate and Structural Divergence of 5'UTR Evolution: "Substitution Rate and Structural Divergence of 5'UTR Evolutio
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Q4R381;
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Q96F16;
Q1-DEC-2001, integrated into Uni
01-DEC-2001, sequence version 1.
07-FEB-2006, entry version 24.
Enhancer of zeste 2, isoform a.
Strausberg R.L., Peingold B.A., Grouse L.H., Derge J.G.,
Klausner R.D., Collins F.S., Wagner L., Schammen C.M., Schuler G.D.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
Richards S., Worley K.C., Hale S., García A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
Pahey J., Helton B., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
                                                                                                                                                                                                                                                                                                    MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
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                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
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Euarchontoglires; Primates;
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rimates; Catarrhini; Hominidae;
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GO; GO:0005634; C:nucleus; IEA.
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PROSITE; PS50280; SET; 1
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RM MEDININE-22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

RX MISTALINE-22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

RX A Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

RX Klausner R.D., Collins P.S., Wagner L., Shenmen C.M., Schuler G.D.,

RX A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

RA Altschenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

RX A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

RX A Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

RX A Stapleton M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

RX Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

RX Babas S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

RX Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

RX Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

RX Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

RX Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

RX Richards S., Horus J.M., Sodergren E.J., Lu X., Gibbs R.A.,

RX Rahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

RX Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

RX Rodriguez A.C., Grimwood J.W., Green E.D., Dickson M.C.,

RX Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,

"Generation and initial analysis of more than 15,000 full-length human

RT and mouse cDNA sequences.";

RY Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
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Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
Muroidea; Muridae; Murinae; Mus.
Ensembl; ENSMUSG00000029687; MGI: MGI:107940; Exh2. GO; GO:0045120; C:pronucleus GO; GO:0003682; F:chromatin | GO; GO:0042054; F:histone mei
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Q99L74;
                                                                                                                                       EMBL; BC003772; AAH03772.1;
EMBL; BC016391; AAH16391.1;
HSSP; Q8X225; 1ML9.
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Director MGC Project;
                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN=CZECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 strausberg R.;
                                                                                                                                                                                                                                                                                                                                     Submitted
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUCLECTIDE SEQUENCE
GO:0045120; C:pronucleus; IDA.
GO:0003682; F:chromatin binding; IDA.
GO:0042054; F:histone methyltransferase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   musculus (Mouse)
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CH II; TISSUE=Mammary tumor metastatized
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RESULT
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71L5 MOUSE PRELIMINARY; PI
Q571L5; MOUSE PRELIMINARY; PI
Q571L5;
10-MAY-2005, integrated into Un
10-MAY-2006, sequence version 1
07-FEB-2006, entry version 4.
MKIAA4065 protein (Fragment).
Name=Bzh2; Synonyms=mKIAA4065;

UniProtKB/TrEMBL.

PRT;

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Best Local :
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GO; GO:0016571; F:histone methylation; IDA.
GO; GO:0051154; P:negative regulation of st
InterPro; IPR001005; Myb_DNA_bd.
InterPro; IPR001214; SET.
Pfam; PP00956; SET; 1.
SMART; SM00717; SANT; 2.
SMART; SM00317; SET; 1.
PROSITE; DF50280; SET; 1.
SEQUENCE 746 AA; 85292 MW; 7442C751E13E
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                                              CKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNEFISEYCGEIISQDEADRRGKVYDK
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Pred. No. 1.5e-211;
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Query Match
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GO; GO:0045120; C:pronucleus; IDA.
GO; GO:0003612; F:chromatin binding; IDA.
GO; GO:000362; F:chrome methyltransferase ac
GO; GO:0042054; F:histone methylation; IPI.
GO; GO:005515; F:protein binding; IPI.
GO; GO:005154; P:histone methylation; IDA.
GO; GO:0051154; P:negative regulation of stria
InterPro; IPR001214; SET.
Pfam; PF00856; SET; 1.
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Okazaki N., Kikuno R.F., Ohara R., Inamoto S., Koseki H., Hir Saga Y., Nagase T., Ohara O., Koga H.;
Prediction of the Coding Sequences of Mouse Homologues of KI The Complete Nucleotide Sequences of Mouse KIAA-homologous of Identified by Screening of Terminal sequences of EDNA Clones Sampled from Size-Fractionated Libraries. ";
Submitted (FEB-2005) to the EMBL/GenBank/DDBJ databases.
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SMART; SM00717; SANT; 2.
SMART; SM00317; SET; 1.
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Buarchontoglires; Glires; Rodentia; Sciurognathi;
Muroidea; Muridae; Murinae; Mus.
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KPNIEPPENVEWSGAEASMFRVLIGTYYDNFCAIARLIGTKTCRQVYEFRVKESSIIAPV
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Pred. No. 1.5e
7; Mismatches
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RESULT 6

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15-7UL-1998, integrated into UniProti
01-NOV-1996, sequence version 1.
07-FEB-2006, entry version 48.
Enhancer of zeste homolog 2 (ENX-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "The murine polycomb-group genes ezh1 and ez clusters on mouse chromosomes 11 and 6."; Mamm. Genome 10:311-314(1999).

-i- FUNCTION: May be involved in the regulat and chromatin structure.

-i- SUBUNIT: Binds ATRX via the SET domain (-i- SUBCELLULAR LOCATION: Nucleus (Probable)
                                                    Copyrighted by the Distributed under
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=97014262; PubMed=8861097; DOI=10.1016/0925-4773(96)00499-6; Hobert O., Sures I., Clossek T., Puchs M., Ullrich A.; "Isolation and developmental expression analysis of Enx-1, a novel mouse Polycomb group gene."; Mech. Dev. 55:171-184(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUCLEOTIDE SEC
STRAIN=129/Sv;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
Muroidea; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Name=Bzh2; Synonyms=Bnx1h;
Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Laible G., Haynes A.R.,
Denny P., Brown S.D.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=99160476; PubMed=10051331; DOI=10.1007/8003359900993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE=Placenta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUCLEOTIDE SEQUENCE.
                                                                                                                            ISOId=Q61188-2; Sequence=VSP_001501;
TISSUB SPECIFICITY: Widely expressed in early embryos. In later embryogenesis, expression restricted to central and peripheral nervous system, liver and thymus. In adult, highest expression spleen, testis and placenta. Lower levels in intestine and musc and very low levels in brain and liver. No expression in heart, thyroid gland, lung and kidney.

DEVELOPMENTAL STAGS: Expressed in both adult and embryo with highest levels in early embryogenesis.

SIMILARITY: Belongs to the EZ family.

SIMILARITY: Contains 1 SET domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                 Name=ENX-1B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBCELLULAR LOCATION: Nucleus (Pro
ALTERNATIVE PRODUCTS:
Event-Alternative splicing; Named
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Name=ENX-1A;
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  U52951;
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                                                    e UniProt Consortium,
the Creative Commons
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Jenuwein T.;
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                                                    see http://www.uniprot.org/terms
Attribution-NoDerivs License
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Matches 686; Conserv
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InterPro; IPR001214; SET.
Pfam; PF00856; SET; 1.
SMART; SM00717; SANT; 2.
SMART; SM00317; SET; 1.
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PROSTITE: PS50280; SET; 1.

Alternative splicing; DNA-binding; Nuclear protein; Pranscription regulation.

Transcription; Transcription regulation.
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GO:0003682; F:chromatin binding; IDA.
GO:00042054; F:histone methyltransferase activity; IDA.
GO:0005515; F:protein binding; IPI.
GO:0016571; P:histone methylation; IDA.
GO:0051154; P:negative regulation of striated muscle cell.
erPro; IPR001005; Myb_DNA_bd.
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                                                                                                                          PAEDVDTPPRKKKRKHRLWAAHCRKIQLKKDGSSNHVYNYQPCDHPRQPCDSSCPCVIAQ
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Nuclear localization signal (Potential).

Cys-rich.

Cys-rich.

Phosphothreonine (By similarity).

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Enhancer of zeste homolog
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 3750; DB 1;
Pred. No. 3.3e-211;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Missing (In Ref. 2)
, 0435C021963ED24B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /FTId=PRO_0000213993.
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RX Carrinci P., Kasukawa T., Katayama S., Gough J., Frith M.C., Maeda N., RA Carrinci P., Kasukawa T., Katayama S., Gough J., Frith M.C., Maeda N., RA Gyama R., Ravasi T., Lenhard B., Wells C., Kodzius R., Shimokawa K., RA Bajic V.B., Brenner S.E., Batalov S., Forrest A.R., Zavolan M., RA Bajic V.B., Brenner S.E., Batalov S., Forrest A.R., Zavolan M., RA Bajic V.B., Bill J.G., Addinis V., Allen J.E., RA Davis M.J., Wilmin L.G., Addinis V., Allen J.E., Bailey T.L., RA Davis M.J., Wilmin J.G., Addinis V., Allen J.R., Bailey T.L., RA Davis M.J., Dalla B., Dallager R., Aturaliya R.N., Bailey T.L., RA Chiu K.P., Choudhary V., Christoffels A., Clutterbuck D.R., RA Crowe M.L., Dalla B., Dalrymple B.P., de Bond B., Della Gatta G., RA Gister C.F., Fukushima T., Furuno M., Futaki S., Gariboldi M., Rallin R., Fukushima T., Furuno M., Futaki S., Gariboldi M., Ra Georgii-Hemming P., Gingeras T.R., Gojobori T., Green R.B., RA Georgii-Hemming P., Gingeras T.R., Gojobori T., K., Hirokawa T., RA Hill D., Huminiecki L., Iacon M., Ikeo K., Iwama A., Inhikawa T., Jake M., Karoh H., Karoh M., Kawasawa Y., Kelso J., Kitamura H., Kitamura H., Kitamura H., Karoh M., Kawasawa Y., Kelso J., Kitamura H., Kita
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07-FEB-2006, entry version 5.
Brythroblast cDNA, RIKEN full-length clone; KOC0026B09 product:enhancer of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q3TZH6 MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN=C57BL/6J;
MEDLINE=99279253; PubMed=10349636; DOI=10.1016/S0076-6879(99)03004-9;
Carninci P., Hayashizaki Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mammalia; Butheria; Buarcho
Muroidea; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    full insert sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUCLEOTIDE SEQUENCE.
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"High-efficiency full-length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=10090;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NPCEKFCQCSSECQNRFPGCRCKAQCNTKQCPCYLAVRECDPDLCLTCGAADHWDSKNVS
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Euarchontoglires; Glires; Rodentia; Sciurogna
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus.
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zeste homolog 2
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RC STRAIN-C57BL/6J;
RX MEDLINE-21085660; PubMed=11217851; DOI=10.1038/35055500;
RX MEDLINE-21085660; PubMed=11217851; DOI=10.1038/35055500;
RA Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA Arawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Saito T., Okazaki Y., Gojobori T., Bonn H., Kasukawa T., Saito R.,
RA Saito T., Okazaki Y., Gojobori T., Bonn H., Kasukawa T., Saito R.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalo Y., Casawant T.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalo Y., King B., Kochiwa H.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Schrimi L.M., Staubli P., Suzuki R., Tomita M., Wagner L., Washio T.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA Nordone P., Ring B., Kingwald M., Rodriguez II., Sakamoto N.,
RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA Mynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RA Yagi K., Tomaru Y., Hasegawa Y., Nogami A., Schombach C., Gojobori T.,
RA Yagi K., Tomaru Y., Hasegawa Y., Nogami A., Schombach C., Gojobori T.,
RA Baldarelli R., Hill D.P., Bult C., Hume D.A., Quackenbush J.,
RA Schriml L.M., Kanapin A., Matsuda H., Batalov S., Belsel K.W.,
RA Blake J.A., Bradt D., Brusic V., Chothia C., Corbani L.R., Cousins S.,
RA Blake J.A., Dragani T.A., Fletcher C.F., Forrest A., Frazer K.S.,
RA Gassterland T., Gariboldi M., Gissi C., Godzik A., Gough J.,
RA Grimmond S., Gustincich S., Hirokawa N., Jackson I.J., Jarvis B.D.,
RA Grimmond S., Gustincich S., Hirokawa N., Jackson I.J., Jarvis B.D.,
RA Kanai A., Kawaji H., Kawasawa Y., Kedzierski R.M., King B.L.,
RA Kanai A., Kawaji H., Kawasawa Y., Kedzierski R.M., King B.L.,
RA Konagaya A., Kurochkin I.V., Lee Y., Lenhard B., Lyons P.A.,
RA Maglott D.R., Maltais L., Marchionni L., McKenzie L., Miki H.,
RA Nagashima T., Numata K., Okido T., Pavan W.J., Pertea G., Pesole G.,
RA Petrovsky N., Pillai R., Pontius J.U., Qi D., Ramachandran S.,
RA Petrovsky N., Pillai R., Pontius J.U., Qi D., Ramachandran S.,
RA Petrovsky N., Pillai R., Pontius J.U., Qi D., Ramachandran S.,
RA Petrovsky N., Pillai R., Pontius J.U., Qi D., Ramachandran S.,
RA Ravasi T., Reed J.C., Reed D.J., Reid J., Rings B.Z., Ringwald K.,
RA Ravasi T., Reed J.C., Wang Y., Watanabe Y., Wells C.,
RA Wilming L.G., Wynshaw-Boris A., Yanagisawa M., Yang I., Yang I.,
RA Yuan Z., Zavolan M., Zhu Y., Zimmer A., Carminci P., Hayatsu N.,
RA Hirozane-Kishikawa T., Komno H., Nakamura M., Sakazume N., Sato K.,
RA Hara A., Hashizume W., Imotani K., Ishii Y., Itoh M., Kagawa I.,
RA Milmishi A., Yoshino M., Waterston R., Lander B.S., Rogers J.,
RA Milmishi A., Yoshino M., Waterston R., Lander B.S., Rogers J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN=C57BL/6J;
PubMed=16141073; DOI=10.1126/science.1112009;
RIKEN Genome Exploration Research Group, and Genome Science (Genome Network Core Team) and the FANTOM Consortium;
"Antisense Transcription in the Mammalian Transcriptome.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tagami M., W.
Hayashizaki 1
                          NUCLEOTIDE SEQUENCE.
STRAIN=C57BL/6J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Birney B., Hayashizaki Y.; "Analysis of the mouse transcriptome based on functional annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=22354683; PubMed=12466851; DOI=10.1038/nature01266; Okazaki Y., Furuno M., Kasukawa T., Adachi J., Bono H., Kondo Okazaki Y., Gato N., Saito R., Suzuki H., Yamanaka I., Kiyosa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN=C57BL/6J
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MEDLINE=20499374; PubMed=11042159;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUCLEOTIDE SEQUENCE
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nce 309:1559-1563(2005)
                                                                                                    ional annotation of a 409:685-690(2001).
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                                                                                                                                        full-length
DOI=10.1101/gr.145100;
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                                                                                                                                           mouse
                                                                                                                                           CDNA
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SMART; SM00717; SANT; 2.
SMART; SM00317; SET; 1.
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InterPro; IPR001214; SET.
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GO:0003682; F:chromatin binding; IDA.
GO:0042054; F:histone methyltransferase
GO:0005515; F:protein binding; IPI.
GO:0016571; P:histone methylation; IDA.
GO:0051154; P:negative regulation of str
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RX MEDLINE-22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Peingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max, Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Roha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren R.J., Lu X., Gibbs R.A.,
RA Villalon D.K., Muzny D.M., Sodergren R.J., Lu X., Gibbs R.A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Holkesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Butterfield Y.S.N., Krzywinski M.I., Schautz J., Myers R.M.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Rodriguez A.C., Schein J.E., Jones S.J.M., Marra M.A.;
RGeneration and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.";
RT proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
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13-SEP-2004,
07-PEB-2006,
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Mammalia; Eutheria;
Muroidea; Muridae;
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GG; GG:0045120; C:pronucleus; IDA.
GG; GG:0004582; F:chromatin binding; IDA.
GG; GG:0042054; F:histone methyltransferase act
GG; GG:005515; F:protein binding; IPI.
GG; GG:0055154; F:negative regulation; IDA.
GG; GG:0051154; P:negative regulation of striat
InterPro; IPR001005; Myb_DNA_bd.
InterPro; IPR001114; SET.
Pfam; PF00856; SET; 1.
SMART; SM00317; SET; 1.
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PROSITE; PS50280; SET; 1.
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Ennembl; ENSMUSG0000029687; Mus mm
MGI; MGI:107940; Ezh2.
GO; GO:0045120; C:promucleus; IDA.
GO; GO:0045120; F:chromatin binding;
GO; GO:0002054; F:histone methylating
GO; GO:0005515; F:protein binding;
GO; GO:0016571; P:histone methylating
GO; GO:0016571; P:negative regulating
GO; GO:001154; F:negative regulating
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                     KVYDKYMCSFLFNLINDFVVDATRKGNKIRFANHSVNPNCYAKV
                                                                                           SKNVSCKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNEFISEYCGEIISQDEADRRG
                                                                                                                                      CVIAQNFCEKFCQCSSECQNRFFGCRCKAQCNTKQCFCYLAVRECDPDLCLTCGAADHWD
                                                                                                                                                          CVIAQNFCEKFCQCSSECQNRFPGCRCKAQCNTKQCPCYLAVRECDPDLCLTCGAADHWD
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RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Rahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Balakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
"Generation and initial analysis of more than 15,000 full-length human
and mouse cDNA sequences.";

Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
                                                                                     Query Match
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Matches 652
                                                                                                                                                                                             EMBL; BC084193; AAH84193.1; -; mRNA.
GO; GO:0005634; C:nucleus; IEA.
GO; GO:0003677; F:DNA binding; IEA.
InterPro; IPR001005; Myb DNA_bd.
InterPro; IPR001214; SET.
Ffam; PF00856; SET; 1.
SMART; SM00317; SET; 1.
SMART; SM00317; SET; 1.
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SEQUENCE 748 AA; 85555 MW; 2916EA
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
Xenopodinae; Xenopus; Xenopus.
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Submitted (OCT-2004) to
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Q98SM3;
01-JUN-2001,
 EMBL; AF351126; AA:
HSSP; Q8X225; 1ML9
                                      Copyrighted by the UniProt Consortium, Distributed under the Creative Commons
                                                                           NUCLEOTIDE SEQUENCE.

MEDLINE=21184113; PubMed=11287189; DOI=10.1016/S0925-4773(01)00304-5;
Barnett M.W., Seville R.A., Nijjar S., Old R.W., Jones E.A.;
Barnett B.W., Seville R.A., Nijjar S., Old R.W., Jones B.A.;

"Xenopus Enhancer of Zeste (XEZ); an anteriorly restricted polycomb gene with a role in neural patterning.";

Mech. Dev. 102:157-167(2001).
                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
Xenopodinae; Xenopus; Xenopus.
                                                                                                                                                                                                                         Enhancer of zeste.
Xenopus laevis (African clawed frog)
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07-FEB-2006,
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                                                                                                                                                                                                                                                     sequence version entry version 20.
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                                                                                                                                                                                                                                                                                                        PRELIMINARY;
               AAK30208.1;
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             mRNA.
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RESULT 11
Q4V863 XENLA PRELIMINARY; PRT; 7.
ID Q4V863;
AC Q4V863;
DT 05-JUL-2005, integrated into UniProtKB.
DT 05-JUL-2005, sequence version 1.
DT 21-FEB-2006, entry version 6.
DE Hypothetical protein.
OS Xenopus laevis (African clawed frog).
OS Eukaryota; Metazoa; Chordata; Craniata
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GO; GO:0003677; F:NNA binding; IE
InterPro; IPR001005; Myb DNA_bd.
InterPro; IPR001214; SET.
Pfam; PP00856; SET; 1.
SMART; SM00317; SEAT; 1.
PROSITE; PS50280; SET; 1.
PROSITE; PS50280; SET; 1.
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Pred. No. 1.7e
26; Mismatches
                                                            UniProtKB/TrEMBL
   Craniata; Vertebrata; Euteleostomi;
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RX Strausberg R.L., Peingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altechal S.F., Zeebberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Altechal S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Glbbs R.A.,
RA Villalon D.K., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.,
"Generation and initial analysis of more than 15,000 full-length human remarks and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse county and mouse count
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GO; GO:0005634; C:nucleus; IEA.
GO; GO:0003677; F:DNA binding; IEA.
InterPro; IPR001005; Myb DNA_bd.
InterPro; IPR001214; BET.
Pfam; PF00856; SET; 1.
SMART; SM00717; SANT; 2.
SMART; SM00317; SET; 1.
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Xenopodinae; Xenopus;
NCBI_TaxID=8355;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Copyrighted by the UniProt Consortium, Distributed under the Creative Commons
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MVEDETVLHNI PYMGDEVLDQDGTFIEELI KNYDGKVHGDRECGFINDEI FVELVNALAQ
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Pred. No. 1.9e-197;
8; Mismatches 27;
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PubMed=15944441; DOI=10.1093/molbev/msi187;

Osada N., Hirata M., Tanuma R., Kusuda J., Hida M., Suzuki Y.,

Osada N., Gojobori T., Shen C.-K.J., Mu C.I., Hashimoto K.;

Sugano S., Gojobori T., Shen C.-K.J., Mu C.I., Hashimoto K.;

"Substitution Rate and Structural Divergence of 5'UTR Evolution:

Comparative Analysis Between Human and Cynomolgus Monkey cDNAs.";

Mol. Biol. Evol. 22:1976-1982 (2005).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            07-FEB-2006, entry version 5.

Testis cDNA, clone: QtsA-1557, similar to human enhancer of homolog 2 (Drosophila) (EZH2), transcript variant 2,.

Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey)

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleost;

Mammalia; Eutheria; Buarchontoglires; Primates; Catarrhini;

Cercopithecidae; Cercopithecinae; Macaca.
EMBL; AB168941; BAE01042.1; -; 1
GO; GO:0005634; C:nucleus; IEA;
GO; GO:0003677; F:DNA binding;
InterPro; IPR001005; Myb_DNA_bd
                                                                                                                                                                          International consortium f "DNA sequences of macaque evolutionary implications. Submitted (JUN-2005) to the
                                                                                                           Copyrighted Distributed
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Pfam; PF00856; SET; 1.
SMART; SM00717; SANT; 2.
SMART; SM00317; SET; 1.
PROSITE; PS50280; SET; 1.
SEQUENCE 695 AA; 79621 M
Homo sapiens (Human).
Eukaryota; Metazoa; C
Mammalia; Eutheria; E
Homo.
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109 HUMAN
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                                                                                                         integrated into UniProtX sequence version 1. entry version 10. protein EZH2 (Fragment).
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CKNCS1QRGSKKHLLLAPSDVAGWG1F1KDPVQKNEF1SEYCGE11SQDEADRRGKVYDK
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Chordata; Craniata; Vertebrata; Euteleostomi;
Euarchontoglires; Primates; Catarrhini; Homin
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RX MEDLINE=22737999; PubMed=12853948; DOI=10.1038/nature01782;
RA Hillier L.W., Fulton R.S., Fulton L.A., Graves T.A., Pepin K.H.,
RA Wagner-McPherson C., Layman D., Maas J., Jaeger S., Walker R.,
RA Wylie K., Sekhon M., Becker M.C., O'Laughiin M.D., Schaller M.E.,
RA Fewell G.A., Delehaunty K.D., Miner T.L., Nash W.E., Cordes M., Du H.,
RA Sun H., Edwards J., Bradshaw-Cordum H., Ali J., Andrews S., Isak A.,
RA Ozersky P., Bielicki L., Scott K., Holmes A., Harkins R., Harris A.,
RA Ozersky P., Bielicki L., Scott K., Holmes A., Harkins R., Harris A.,
RA Strong C.M., Hou S., Tomlinson C., Dauphin-Kohlberg S.,
RA Strowicz-Reilly A., Leonard S., Rohlfing T., Rock S.M.,
RA Tin-Wollam A.-M., Abbott A., Minx P., Maupin R., Strowmatt C.,
RA Tin-Wollam A.-M., Abbott A., Minx P., Maupin R., Strowmatt C.,
RA Harreille P., Miller N., Johnson D., Murray J., Woessner J.P.,
RA Wendl M.C., Yang S.-P., Schultz B.R., Wallis J.W., Spieth J.,
RA Hickenbotham M.T., Eldred J., Williams D., Bedell J.A., Mardis E.R.,
RA Gillett W., Zhou Y., James R., Phelps K., Iadanoto S., Bubb K.,
RA Gillett W., Zhou Y., James R., Phelps K., Iadanoto S., Bubb K.,
RA Baertsch R.A., Brent M.R., Keiber E., Flicek P., Bock P., Suyana M.,
RA Bailey J.A., Portnoy M.E., Torrents D., Chinwalla A.T., Gish W.R.,
The DNA sequence of human chromosome 7.";
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InterPro; IPR001214; SET.
Pfam; PP00856; SET; 1.
SMART; SM00717; SANT; 2.
SMART; SM00317; SET; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Copyrighted by the UniProt Consortium,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Distributed under the Creative Commons
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (JAN-1999)
                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                      Hypothetical protein.
                                                                                                                                                                                                                                                                                                    PROSITE; PS50280; SET; 1
                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                                                             GO:000563; C:nucleus; IEA.
GO:0005677; F:DNA binding; II
GO:0003677; F:DNA binding; II
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121
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bl; ENSG00000106462; Homo sapiens.
                                                                                                                                                                                         617;
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                                                           GTFIEELIKNYDGKVHGDRECGFINDEIFVELVNALGQYNDDDDDDDDDDDDEEREEKQKD
                                                                                                                                           CSVTSDLDFFTQVIFLKTINAVASVPIMYSWSFLQQNFMVEDETVLHNIFYMGDEVLDQD
LEDHRODKESRPPRKFPSDKIFEAISSMFPDKGTAEELKEKYKELTEQQLPGALPPECTP
                   LEDHRDDKESRPPRKFPSDKIFBAISSMFPDKGTAEELKEKYKELTEQQLPGALFPECTP
                                                                                                                            CSVTSDLDFPTQVIPLKTLNAVASVPIMYSWSPLQQNFMVEDETVLHNIPYMGDEVLDQD
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Pred. No. 4.6e-190;
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Attribution-NoDerivs License
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RX MEDLINE-22737999; Pubmed=12853948; DOI=10.1038/nature01782; MEDLINE-22737999; Pubmed=12853948; DOI=10.1038/nature01782; RA Hillier L.W., Fulton R.S., Fulton L.A., Graves T.A., Pepin K.H., RA Wagner-McPherson C., Layman D., Maas J., Jaeger S., Walker R., RA Wagner K., Sekhon M., Becker M.C., O'Laughlin M.D., Schaller M.E., RA Fewell G.A., Delehaunty K.D., Miner T.L., Nash W.E., Cordes M., Du H. Rak Sun H., Edwards J., Bradshaw-Cordum H., Ali J., Andrews S., Isak A., RA Sun H., Edwards J., Bradshaw-Cordum H., Ali J., Andrews S., Isak A., RA Sun H., Edwards J., Bradshaw-Cordum H., Ali J., Andrews S., Isak A., RA Sun H., Edwards J., Bradshaw-Cordum H., Ali J., Andrews S., Isak A., RA Sun H., Edwards J., Bradshaw-Cordum H., Ali J., Andrews S., Isak A., RA Strong C.M., Holmes A., Harkins R., Harris A., Strong C.M., Holmes A., Harkins R., Harris A., Strong C.M., Holmes A., Minx P., Maupin R., Kalicki J., RA Kozlowicz-Reilly A., Leonard S., Rohlfing T., Rock S.M., RA Kozlowicz-Reilly A., Leonard S., Rohlfing T., Rock S.M., RA Kozlowicz-Reilly A., Leonard S., Minx P., Maupin R., Strowmatt C., RA Hickenbotham M.T., Schultz B.R., Wallis J.W., Spieth J., RA Wendl M.C., Yang S.-P., Schultz B.R., Wallis J.W., Spieth J., RA Gillett W., Zhou Y., James R., Phelps K., Iadanoto S., Bubb K., RA Gillett W., Zhou Y., James R., Phelps K., Iadanoto S., Bubb K., RA Baertsch R.A., Brent M.R., Keibler E., Flicek P., Bork P., Suyama M., RA Balley J.A., Portnoy M.E., Torrents D., Chinwalla A.T., Gish W.R., RA Waterston R.H., Wilson R.K., Joson M.V., Eichler E.B., Green E.D., "The DNA sequence of human Chromosome 7.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-JUL-2004,
05-JUL-2004,
21-FEB-2006,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa;
Mammalia; Butheria;
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Query Match
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InterPro; IPR001214; SET.
Pfam; PP00856; SET; 1.
SMART; SM00717; SANT; 2.
SMART; SM00317; SET; 1.
PROSITE; PS50280; SET; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hypothetical protein.
NON_TER 1
SEQUENCE 669 AA; 7
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Ensembl; ENSG00000106462; Homo sapiens.
GO; GO:0005634; C:nucleus; IEA.
GO; GO:0003677; F:DNA binding; IEA.
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"The sequence of Homo sapiens PAC clone RP5-1151M5.";
Submitted (JAN-1999) to the EMBL/GenBank/DDBJ databases.
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PSDVAGWGIFIKDPVQKNEFISEYCGEIISQDEADRRGKVYDKYMCSFLFNLNNDFVVDA
                                   PGCRCKAQCNTKQCPCYLAVRECDPDLCLTCGAADHWDSKNVSCKNCSIQRGSKKHLLLA
                                                      PGCRCKAQCNTKQCPCYLAVRECDPDLCLTCGAADHWDSKNVSCKNCSIQRGSKKHLLLA
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Pred. No. 7.3e-189;
0; Mismatches 1;
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Best Local S
Matches 587
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InterPro; IPRO01114; SET.
Pfam; PF00856; SET; 1.
SMART; SM00717; SENT; 2.
SMART; SM00317; SET; 1.
PROSITE; PS50280; SET; 1.
SEQUENCE 759 AA; 86834 MW; DBJ
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VP4 TETNG

Q90WP4 TETNG

Q90WP4;

01-DEC-2001,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tetraodon nigroviridis (Green puffer).

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;

Actinopterygii; Neopterygii; Teleostei; Buteleostei; Neoteleostei;

Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;

Tetradontoidea; Tetraodontidae; Tetraodon.
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07-FEB-2006,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Copyrighted by the UniProt Consortium, see http://www.uniprot.org/terms Distributed under the Creative Commons Attribution-NoDerivs License
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Name=ezh2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Proc. Natl. Acad. Sci. U.S.A.
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587; Conserv
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           SMPPDKGTAEELKEKYKELTEQQLPGALPPECTPNIDGPNAKSVQREQSLHSFHTLFCRR
                                                               DDDDDDDDDDDDERREEK-----QKDLEDHRDD----KESRP----PRKFPSDKIFEAIS
                                                                                                  EDETVLHNIPYMGDEILDQDGTFIEBLIKNYDGKVHGDRECGFINDEIFVELVNALAQYS
                                                                                                                                                   RIQPVHIMTSVGSLRGTRECTVDSSFSEFPRQVIPLKTLNAVASVPVMYSWSPLQQNFMV
                                                                                                                                                                  RIQPVHILTSVSSLRGTRBCSVTSDL-DPPTQVIPLKTLNAVASVPIMYSWSPLQQNFMV
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82.2%;
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                                                                                                                                                                                                                                                       Score 3164.5; DB 2;
Pred. No. 6.5e-177;
3; Mismatches 51;
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646 659	599	526 539	466 479	406 420	346 362	289 304
ISQDRADRRGKVYDKYMCSFLFNLNNDFVVDATRKGNKIRFANHSVNPNCYAKV 699	LTCGAADHWDSKNVSCKNCSIQRGSKKHLLLAPSDVAGWGIFIKDFVQKNBFISEYCGEI 645 	PROPCDSSCPCVIAQNFCEKFCQCSSECQNRFPGCRCKAQCNTKQCPCYLAVRECDPDLC 585	VYEPRVKESSIIAPAPAEDVDTPPRKKKKHRLWAAHCRKIQLKKDGSSNHVYNYQPCDH 525 	SSSEANSRCQTPIKWKDNIEPPENVEWSGAEASMFRVLIGTYYDNFCAIARLIGTKTCRQ 465	PPKRPGGRRRGRLPNNSSRPSTPTINVLESKDTDSDREAGTETGGENNDKEEEEKKDETS 405	CFKYDCFLHPFHATPNTYKRKNTETALDNKPCGPQCYQHLEG-AKEFAAALTAERIKT 345

Search completed: August 11, 2006, 22:28:04 Job time : 189.206 secs

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Result
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Perfect score:
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1: /EMC Celerra_SIDS3/ptodata/2/iaa/5_COMB.pep:*

2: /EMC Celerra_SIDS3/ptodata/2/iaa/6_COMB.pep:*

3: /EMC_Celerra_SIDS3/ptodata/2/iaa/7_COMB.pep:*

4: /EMC_Celerra_SIDS3/ptodata/2/iaa/H_COMB.pep:*

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6: /EMC_Celerra_SIDS3/ptodata/2/iaa/PCTUS_COMB.pep:*

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US-09-061-769A-2
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Sequence 316, App
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145	149	160.5	160.5	160.5	163	164	164	165	168.5	169.5	174.5	177.5	178.5	178.5	178.5	178.5	181	191.5
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Sequence 975, App	Sequence 32, Appl	Sequence 82, Appl	Seguence 82, Appl	Sequence 82, Appl	Sequence 31, Appl	Sequence 47093, A	Sequence 31876, A	Sequence 15, Appl	Sequence 425, App	Sequence 13, Appl	Sequence 30, Appl	Sequence 12, Appl	Sequence 4, Appli	Sequence 4, Appli	Sequence 4, Appli	Sequence 4, Appli	Sequence 14, Appl	Sequence 15128, A

ALIGNMENTS

APPLICANT: Leinwein, Thomas APPLICANT: Lable, Gotz APPLICANT: O'Carroll, Donal APPLICANT: Gotarroll, Donal APPLICANT: Res, Stephen TITLE OF INVENTION: Chromatin-Regulator Genes FILE REFERENCE: 0652.1670001 CURRENT FILING DATE: 2000-06-09 FRIOR APPLICATION NUMBER: US/09/589,892B CURRENT FILING DATE: 1997-11-10 PRIOR APPLICATION NUMBER: PCT/EP96/01818 PRIOR FILING DATE: 1996-05-02 PRIOR FILING DATE: 1996-05-02 PRIOR FILING DATE: 1996-05-02 PRIOR FILING DATE: 1996-05-10 NUMBER OF SEG ID NOS: 21 SOFTWARE: Patentin version 3.2 SEG ID NO 2 LENGTH: 746 TYPE: PRT ORGANISM: Homo sapiens US-09-589-892B-2 US-09-589-892B-2 ; GENERAL INFORMATION: Sequence 2, Application US/09589892B Patent No. 6689583

Query Ma Best Loc Matches	Query Match 100.0%; Score 3808; DB 2; Length 746; Best Local Similarity 100.0%; Pred. No. 0; Mismatches 0; Indels 0; Gaps
\$	1 MGQTGKKSEKGPVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILERTEILNQEW
皮	1 MGQTGKKSEKGPVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILERTEILNQEW 60
γ	61 KQRRIQPVHILTSVSSLRGTRECSVTSDLDPPTQVIPLKTLNAVASVPIMYSWSPLQQNF 120
DЪ	61 KQRRIQPVHILTSVSSLRGTRECSVTSDLDPPTQVIPLKTLNAVASVPIMYSWSPLQQNP 120
Ş	121 MVEDETVLHNIPYMGDEVLDQDGTFIEBLIKNYDGKVHGDRECGFINDEIFVELVNALGQ 180
뮍	121 MVEDETVLHNIFYMGDEVLDQDGTFIBELIKNYDGKVHGDRECGFINDEIFVELVNALGQ 180
Ş.	181 YNDDDDDDGDDPEEREEKQKDLEDHRDDKESRPPRKFPSDKIFEAISSMFPDKGTAEEL
DЪ	181 YNDDDDDDGDDPEEREKQKDLEDHRDDKESRPPRKFPSDKIFEAISSMFPDKGTAEEL
Ø.	241 KEKYKELTEQQLPGALPPECTPNIDGPNAKSVQREQSLHSFHTLFCRRCFKYDCFLHPFH 300

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APPLICANT: HELIX RESEARCH INSTITUTE
TITLE OF INVENTION: No. 6943241el full length cDR
FILE REFERENCE: H1-A0105
CURRENT APPLICATION NUMBER: US/10/104,047
CURRENT FILING DATE: 2002-03-25
PRIOR APPLICATION NUMBER:
PRIOR PILING DATE:
PRIOR FILING DATE:
NUMBER OF SEQ ID NOS: 4096
SOPTWARE: Patentin Ver. 2.1
SEQ ID NO 3162
LENGTH: 707
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Best Local
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                                                                                                                                                                                                                                                                              Match 93.7%;
Local Similarity 94.3%;
les 659; Conservative
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                                             YNDDDDDDDGDDPERREKQKDLEDHRDDKESRPPRKFPSDKIFEAISSMFPDKGTAEEL 240
                                                                                             -VEDETVLHNI PYMGDEVLDQDGTFIEELIKNYDGKVHGDRECGFINDEIFVELVNALGQ
                                                                                                                                                         KQRRIQPVHILTSVSSLRGTRE------
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                                YNDDDDDDDGDDPEERBEKQKDLEDHRDDKESRPPRKFPSDKIFEAISSMFPDKGTAEEL
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Pred. No. 1.9e-301;
0; Mismatches 1;
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APPLICANT: Labble, Gotz
APPLICANT: Co'Carroll, Donal
APPLICANT: Co'Carroll, Donal
APPLICANT: Eisenhaber, Frank
APPLICANT: Res, Stephen
ITILE OF INVENTION: Chromatin-Regulator Genes
FILE REFERENCE: 0652.1670001
CURRENT APPLICATION NUMBER: US/09/589,892B
CURRENT APPLICATION NUMBER: US 08/945,988
PRIOR APPLICATION NUMBER: US 08/945,988
PRIOR FILING DATE: 1997-11-10
PRIOR APPLICATION NUMBER: DC 1986/01818
PRIOR FILING DATE: 1996-05-02
PRIOR APPLICATION NUMBER: DE 195 16 776.7
PRIOR PILING DATE: 1996-05-02
SPIOR APPLICATION NUMBER: DE 195 16 776.7
PRIOR FILING DATE: 1995-05-10
NUMBER OF SEQ ID NOS: 21
SOFTWARE: Patentin version 3.2
SEQ ID NO 11
LENGTH: 760
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                                                                                                                                                        Query Match
Best Local Simi
Matches 395;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 11, Application US/09589892B Patent No. 6689583
GENERAL INFORMATION:
                                                                                                                                                                                                                                  TYPB: PRT
ORGANISM: Drosophila melanogaster
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   EDETVLHNIPYMGDEVLDQDGTFIEELIKNYDGKVHGDRECGFINDEIFVELVNAL----
                                  YDPPHV-----DCVKRAEVTSYNGIPSGPQKVPICBINAVTPIPTMYTWAPTQQNFWV
                                                 IQPVHILTSVSSLRGTRECSVTSDLDFFT--QVIFLKTLNAVASVFIMYSWSFLQQNFMV
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                                                                                               STKVPPEWKRRVKSEYIKIRQQKRYKHADBIKEAWIRNWDEHNHNVQDLYCESKVWQAKP
                                                                                                                          SEKGPVCWRKRVKSEYMRLROLKRFRRADEVKSMFSSNRQKILERTEIL---NQEWKQRR
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                                                                                                                                                         50.8%; Score 1934.5; DB 2; llarity 52.1%; Pred. No. 2.9e-159; Conservative 85; Mismatches 165;
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PRIOR APPLICATION NUMBER: PCT/US99/08385
PRIOR FILLING DATE: 1999-04-16
PRIOR APPLICATION NUMBER: 60/083,212
PRIOR FILLING DATE: 1998-04-27
NUMBER OF SEQ ID NOS: 13
SOFTWARE: Microsoft Office 97
SEQ ID NO 13
LENGTH: 856
TYPE: PRT
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US-09-699-266A-13
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                                                                                    ; ORGANISM: Arabidopsis thaliana US-09-699-266A-13
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GENERAL INFORMATION:
APPLICANT: Ma, Hongchang
APPLICANT: Morakinyo, Layo O.
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               Query Match 18.9
Best Local Similarity 27.6
Matches 231; Conservative
                                                                                                                                                                                                                                                                 APPLICANT: Orozsco Jr., Emil M.
APPLICANT: Rafalski, J. Antoni
TITLE OF INVENTION: TRANSCRIPTION AND GENE
FILE REPERENCE: BB1164 US NA
CURRENT APPLICATION NUMBER: US/09/699,266A
CURRENT FILING DATE: 2000-10-27
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APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VD---TPPRKKKKKHLWAAHCRKIQLKKDGSSNHVINYQPCDHPRQPCDSSCPCVIAQN
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                                                                                                                                                                                                                                                                                                                                                                    Odell, Joan T
                 18.9%; Score 719.5; DB 2; 27.6%; Pred. No. 1.5e-53; :ive 110; Mismatches 256;
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                                                                                                                                                                                                                                                                                                                       EXPRESSION
                    Indels
                                                   Length
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                    241;
                   Gaps
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                   38;
RESULT 5

US-09-699-266A-12

; Sequence 12, Application US/09699266A
; Patent No. 6559354
; GENERAL INFORMATION:
APPLICANT: Ma, Hongchang
APPLICANT: Morakiny, Layo O.
APPLICANT: Odell, Joan T.
APPLICANT: Odell, Joan T.
APPLICANT: Rafalski, J. Antoni
TITLE OF INVENTION: TRANSCRIPTION AND GENE EX
FILE REFERENCE: BB1164 US NA
CURRENT APPLICATION NUMBER: US/09/699,266A
; CURRENT APPLICATION NUMBER: PCT/US99/nann
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PRIOR FILING DATE: 1999-04-16
PRIOR APPLICATION NUMBER: 60/083,21
PRIOR FILING DATE: 1998-04-27
NUMBER OF SEQ ID NOS: 13
SOFTWARE: Microsoft Office 97
SEQ ID NO 12
LENGTH: 902
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Best Local
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SEYCGEIISQDEADRRGKYYDKYMCSFLFNLNNDFYVDATRKGNKIRFANHSVNPNCYAK
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                                                                                                                                       ECPCLLNGTCCEKYCGCPKSCKNRFRGCHCAKSQCRSRQCPCFAADRECDPDVCRNC---
                                                                                                                                                                 SCPCVIAQNFCEKFCQCSSECQNRFPGGCC-KAQCNTKQCPCYLAVRECDPDLCLTCGAA 591
                                                                                                                                                                                                                                                        HR-----LW---AAHC--RKIQLKKDGSSNHVYNYQPCDHPRQ-----PCDS
                                                                                                                                                                                                                                                                                                 LIARNILLSGFKSCWEVFQYMTCSENKASFFGGDGLNPDGSSKFDINGNMVNNQVRRRSRF
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                                                                                                                                                                                                                                                                                                                                                                           COSNEVASELDAPGSDESLRKEEFMGETVSRGRLATNKLWRPLEKSLFDKGVEIFGWNSC
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                                                        --WVIGGDGSLGVPSORGDNYECRNMKLLLKQQQRVLLGISDVSGWGAFLKNSVSKHEYL
                                                                                                     DHW-----
                                                                                                                                                                                                                    LRRRGKVRRLKYTWKSAAYHSIRKRITEKKD-----QPC---RQFNPCNCKIACGK 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -----DKEEEKKDETSSS-----SKANSRCQTPIKMKPN-----
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                                                                              ---DSKNVSCKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNEFI
                                                                                                                                                                                                                                                                                                                                     ---KESSIIAPAPAEDVDTPPRKKKRK 495
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SOFTWARE: Microsoft Office 97
SEQ ID NO 9
LENGTH: 921
TYPE: PRT
ORGANISM: Zea mays
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APPLICANT: Odell, Joan T.
APPLICANT: Odell, Joan T.
APPLICANT: Orozsco Jr., Emil M.
APPLICANT: Rafalski, J. Antoni
TITLE OF INVENTION: TRANSCRIPTION AND GENE EXPRESSION REGULATORS
FILE REFERENCE: BB1164 US NA
CURRENT APPLICATION NUMBER: US/09/699,266A
CURRENT FILING DATE: 2000-10-27
PRIOR APPLICATION NUMBER: PCT/US99/08385
PRIOR APPLICATION NUMBER: 60/083,212
PRIOR PILING DATE: 1998-04-27
PRIOR FILING DATE: 1998-04-27
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                                                                                                       TKSQQSESSSTARVISESSDSEVHPISNKSPQHSPSPSKVKIGPKGGIRKITNRRIAERI
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APPLICANT: Goldberg, Robert B.

APPLICANT: The Regents of the University of California

FITLE OF INVENTION: Nucleic Acids That Control Seed and Fr

FITLE OF INVENTION: Development in Plants

FILE REFERENCE: 023070-086120US

CURRENT APPLICATION NUMBER: US/09/177,249

CURRENT FILING DATE: 1998-10-22

EARLIER APPLICATION NUMBER: US 09/071,838

EARLIER FILING DATE: 1998-05-01

NUMBER OF SEQ ID NOS: 324

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 2

LENGTH: 689
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US-09-177-249-2
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US-09-177-249-2
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                                                                                                                                                                             Query Match 16.1%; Score 612; DB 2; Length 689; Best Local Similarity 25.4%; Pred. No. 2.4e-44; Matches 162; Conservative 100; Mismatches 197; Indels 1
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Patent No. 6229064
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                                                                                                                                                                                                                                                                   TYPE: PRT
               209
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               GLDDLVVRRALAKYLEVDVSDILERYNELKLKN--
                                                                                     NALGQYNDDDDDDDDDDDBE-REEKQKDLEDHRDDKESRPPRKFPSDKIFEAISSMFPDK
                                                                                                                           FLDEDVPLLPSVKLPIVEKLPRSITWVFTKSSQLMAESD-SVIGKRQIYYLNGE-----
                                                                                                                                                     FMVEDETVLHNIPYMGDEVLDQDGTFI----EELIKNYDGKVHGDRECGFINDEIFVELV 175
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APPLICANT: Cold spring Harbor Labs
TITLE OF INVENTION: No. 6239327el Seed Specific Polycomb Group Gene and Methods of
TITLE OF INVENTION: use for Same
FILE REFERENCE: mea genes
CURRENT APPLICATION NUMBER: US/09/061,769A
CURRENT FILING DATE: 1998-04-16
PRIOR APPLICATION NUMBER: 09/061,769
PRIOR FILING DATE: 1998-04-16
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; OTHER INFORMATION: Description of Artificial Sequence: MEAwt US-09-061-769A-2
                                                                                                                                                                                                                                                                                                                                                     Matches 162; Conservative 100; Mismatches 197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 689
TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
279
                                                                                                                                                                                              176 NALGOYNDDDDDDDDDDDEE-REEKQKDLEDHRDDKESRPPRKFPSDKIFEAISSMFPDK 234
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IGSSYLFTLANDQLEIDARRKGNEFKFLAHSARPNCYAKL 631
  HSFHTLF--
                                                    GLDDLVVRRALAKYLEVDVSDILERYNELKLKN-----
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                                                                                                                                                                                                                                                                                                                                                                             16.1%; Score 612; DB 2; 25.4%; Pred. No. 2.4e-44;
  -CRRCFKYDCFLHPFHATPNTYKRKNTSTAL---DNKPCGPQCYQH
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                                                                                                                                                                                                                                                                                                                                                                                                       Length 689;
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                                                                                                                                                                                                                                                                                                                                                        Indels 180;
                                                    DGTAGEA -- SDLTS
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APPLICANT: Goldberg, Robert B.
APPLICANT: Goldberg, Robert B.
APPLICANT: The Regents of the University of California
TITLE OF INVENTION: Nucleic Acids That Control Seed and Fru
TITLE OF INVENTION: Development in Plants
FILE REFERENCE: 023070-086120US
CURRENT APPLICATION NUMBER: US/09/812,283
CURRENT APPLICATION NUMBER: 09/177,249
PRIOR APPLICATION NUMBER: 09/177,249
PRIOR APPLICATION NUMBER: 09/071,838
PRIOR FILING DATE: 1998-10-22
PRIOR FILING DATE: 1998-05-01
NUMBER OF SEQ ID NOS: 324
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                                                                                                                                                                                                   ; TYPE: PRT
; ORGANISM: Arabidopsis
US-09-812-283-2
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US-09-812-283-2
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                                                                                                                                 Query Match
Best Local S
Matches 162
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APPLICANT: Ohad, Ni
APPLICANT: Kiyosue,
APPLICANT: Yadegari
APPLICANT: Margossi
APPLICANT: Harada,
APPLICANT: Goldberg
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Patent No. 6828477
GENERAL INFORMATION:
                                                                                                                                                                                                                                                  SOPTWARE: PatentIn Ver.
SEQ ID NO 2
LENGTH: 689
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                          176 NALGQYNDDDDDDDDDDDDBB-RBEKQKDLEDHRDDKESRPPRKFPSDKIFEAISSMFPDK 234
 167
                                                                                                                                    162;
                                                                                                                                                  Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNEFISEYCGEIISQDEADRRGKVYDK
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ----RKKSRLRKYARYPPALKKTTSGEAKFYKHYTPCT-CKSKCGQQCPCLTHENCCEKY
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                                                              CKNMQFLLQTNKKILIGKSDVHGWGAFTWDSLKKNBYLGEYTGELITHDBANERGRIEDR
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 -ALELSSEEDBEDEBEBEBEKKEKCEFSED-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Kiyosue, Tomohiro
Yadegari, Ramin
Margossian, Linda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ohad, Nir
                                                                                                                                 16.1%; Score 612; DB 2; llarity 25.4%; Pred. No. 2.4e-44; Conservative 100; Mismatches 197
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   -VDRFIWIVGQDY 208
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; TYPE: PRT; ORGANISM: Arabidopsis thaliana; FEATURE: ; OTHER INFORMATION: MEDEA (MEA) US-10-176-884-14
                                                                                                                                                                                                                                                                                                              APPLICANT: Kinoshita, Tetsu
APPLICANT: Yadegari, Ramin
APPLICANT: Gehring, Mary
APPLICANT: Okamuro, Jack
APPLICANT: Okamuro, Jack
APPLICANT: The Regents of the University of California
APPLICANT: Crees, Inc.
TITLE OF INVENTION: Compositions and Methods for Modulating
TITLE OF INVENTION: Development
FILE REFERENCE: 023070-116710US
CURRENT APPLICATION NUMBER: US/10/176,884
CURRENT FILING DATE: 2002-66-21
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PRIOR FILING DATE: 2001-06-22
NUMBER OF SEQ ID NOS: 91
SOPTWARE: PATENTIN Ver. 2.1
SEQ ID NO 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Fischer, I
APPLICANT: Kinoshita
APPLICANT: Yadegari,
APPLICANT: Gehring,
APPLICANT: Okamuro,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 14, Apr-
                                    Query Match
Best Local Similarity
Matches 162; Conserv
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                                                                                                                                                                                                      LENGTH: 689
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120 FMVEDETVLHNIPYMGDEVLDQDGTFI----EELIKNYDGKVHGDRECGFINDEIFVELV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----RKKSRLRKYARYPPALKKTTSGEAKFYKHYTPCT-CKSKCGQQCPCLTHENCCEKY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Application US/10176884
                                  16.1%; Score 612; DB 2; Lilarity 25.4%; Pred. No. 2.4e-44; Conservative 100; Mismatches 197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Robert
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                                                                                                                                                                                                                                                                                                                                                                                               for Modulating
                                                                           Length 689;
                                          Indels 180;
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                                          Gaps
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RESULT 11
US-09-071-838A-2
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GENERAL INFORMATION:
                COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version

CURRENT APPLICATION DATA:
                                                                                                                                                                                                             NUMBER OF SEQUENCES: 324
CORRESPONDENCE ADDRESS:
CORRESPONDENCE ADDRESS: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Fischer,
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STATE: California
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  APPLICATION NUMBER: US/09/071,838A
                                                                                                                                        ZIP: 94111-3834
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                                                                                                                                                      COUNTRY: USA
                                                                                                                                                                                                                                                                                    Goldberg, Robert B.

OF INVENTION: Nucleic Acids That Control Seed
Fruit Development in Plants
                                                                                                                                                                                                                                                                                                                                                   Harada, John
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Yadegari, Ramin
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                RESULT 12
US-10-176-884-15
; Sequence 15, Application
; Patent No. 690624
; GENERAL INFORMATION:
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Best Local Similarity
Matches 162; Conserv
APPLICANT: Fischer,
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SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 01-May-1998
CLASSIFICATION: «Unknown»
ATTORNEY/AGENT INFORMATION:
NAME: Bastlan, Kevin L.
REGISTRATION NUMBER: 34,774
REFERENCE/DOCKET NUMBER: 0230
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300
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                                                                                                                                                          IGSSYLFTLNDQLBIDARRKGNEFKFLNHSARPNCYAKL
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25.4%; Pred. No. 2.
                                                           US/10176884
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TITLE OF INVENTION: Compositions and Methods for INTELE OF INVENTION: Development FILE REFERENCE: 023070-116710US
CURRENT APPLICATION NUMBER: US/10/176,884
CURRENT FILING DATE: 2002-06-21
PRIOR APPLICATION NUMBER: US 60/300,506
PRIOR FILING DATE: 2001-06-22
NUMBER OF SEO ID NOS: 91
SOPTWARE: Patentin Ver. 2.1
SEO ID NO 15
LENGTH: 932
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APPLICANT:
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APPLICANT:
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LOCATION: (906)
OTHER INFORMATION: Xaa =
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OTHER INFORMATION:
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ORGANISM: Artificial Sequence
FEATURE:
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Yadegari, Rami
Gehring, Mary
Okamuro, Jack
                  CKNCSIQRGSKKHLLLAPSDVAGWGIFIKDFVQKNEFISEYCGEIISQDEADRRGKVYDK
                                                                                                        CQCSSECQNRFPGCRCK-AQCNTKQCPCYLAVRECDPDLC----LTCGAADHWDSK-NVS
                                                                                                                                                                              TPPRKKKKKKILWAAHCRKIQLKKDGSSNHVYNYQPCDHPRQPCDSSCPCVIAQNFCEKF 546
                                                                                                                                                                                                                                                                                                                                                                                                      LEGAKEFAAALTAERIKTPPKRPGGRRRGRLPNNSSRPSTPTINVLESKDTDSDREAGTE 387
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CKNMOFILOTNKKILIGKSDVHGWGAFTWDSLKKNEYLGEYTGELITHDEANERGRIEDR
                                                                        CGCSKDCNNRFGGCNCAIGQCTNRQCPCFAANRECDPDLCRSCPLSCGDGTLGETPVQIQ
                                                                                                                                            ----RKKSRLRKYARYPPALKKTTSGEAKFYKHYTPCT-CKSKCGQQCPCLTHENCCEKY
                                                                                                                                                                                                                                                                                                                              TGGENNDKEEEEKKDETSSSSEANSRCQTPIKMKPNIEPPENVEWSGAEASMFRVLIGTY 447
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The Regents of the University of California
Ceres, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative 100; Mismatches 197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Description of Artificial Sequence:MEA-15G-ESA1 chimeric polypeptide encoded by transgene plasm pCRS304-5UAS MEA-15G-ESA1
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Pred. No. 3.7e-44;
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US-10-200-012-39 RESULT 14

US/10200012

GENERAL INFORMATION: Sequence 39, Application Patent No. 6955905

APPLICANT: Huang, Shi
TITLE OF INVENTION: PR/SET- Domain Containing Nucleic Acids,
TITLE OF INVENTION: Polypeptides, Antibodies and Methods of I
TITLE OF INVENTION: Polypeptides, Antibodies and Methods of I
TITLE REFERENCE: P-LJ 5301
CURRENT FILING DATE: 2002-07-18
PRIOR APPLICATION NUMBER: US 09/910,478
PRIOR APPLICATION NUMBER: US 09/910,478
PRIOR PILING DATE: 2001-07-18
NUMBER OF SEQ ID NOS: 46
SOPTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 39

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PRIOR FILING DATE: 1998-04-27
NUMBER OF SEQ ID NOS: 13
SOFTWARE: Microsoft Office 97
SEQ ID NO 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                vequence 11, Application US/09699266A Patent No. 6559354
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Best Local S
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APPLICANT: Orozaco Jr., Emil M.
APPLICANT: Rafalaki, J. Antoni
TITLE OF INVENTION: TRANSCRIPTION AND GENE EXPRESSION REGULATORS
FILE REFERENCE: BB1164 US NA
CURRENT APPLICATION NUMBER: US/09/699,266A
CURRENT FILING DATE: 2000-10-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: PCT/US99/08385 PRIOR FILING DATE: 1999-04-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Ma, Hongchang APPLICANT: Morakinyo, L
                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT ORGANISM: Triticum aestivum
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                                                                    WGELWSGSPRRATKKEVMVTQCGNMKLLLLKQQQRILLGKSDVAGWGAFIKNPVHKNDYLG
                                                                                                                                      CNKNCPCVENGTCCEKYCGCSKSCKNRPRGCHCAKISAEAGNAHVLLPSGNVIRMFCRNC
                                                                                                                                                           CDSSCPCVIAQNFCEKFCQCSSECQNRFPGCRC-KAQCNTKQCFCYLAVRECDPDLCLTC
                                                                                                                                                                                                           EQNYMEQGMVVRTKVCRRRGRTRKHKYPSKAAGHPAIRKKVGDGKQCDRQYTPCG-CQEM
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                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                        -GAADHWDSKNV----SCKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNEFIS 639
                                                                                                                                                                                                                                                                                                                                             12.4%; Score 470.5; DB 2 36.3%; Pred. No. 1.9e-32; tive 39; Mismatches 119
                                                                                                                                                                                                                                            ---RKKKRKHRLWAAHCRKIQLKKDGSSNHVYNYQPCDHPRQP
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        301
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APPLICANT: Kinoshita, Tetsu
APPLICANT: Kinoshita, Tetsu
APPLICANT: Yadegari, Ramin
APPLICANT: Gehring, Mary
APPLICANT: Gehring, Mary
APPLICANT: Gehring, Mary
APPLICANT: Dang, Van-Dinh
APPLICANT: Dang, Van-Dinh
APPLICANT: Ceres, Inc.
TITLE OF INVENTION: Compositions and Methods for Modulating Plant
TITLE OF INVENTION: Development
FILE REFERENCE: 023070-116710US
CURRENT FILING DATE: 2002-06-21
PRIOR APPLICATION NUMBER: US 60/300,506
PRIOR FILING DATE: 2001-06-22
NUMBER OF SEQ ID NOS: 91
SOPTWARE: PATENTING PATENTING PATENTING PATENTING DATE: 2001-06-22
NUMBER OF SEQ ID NOS: 91
SEQ ID NO 19
LENGTH: 115
TYPE: PRI
ORGANISM: Artificial Sequence
PEATURE:
OTHER INFORMATION: Description of Artificial Sequence:exemplary SET
OTHER INFORMATION: domain
US-10-176-884-19
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US-10-176-884-19
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Best Local Similarity 73.4%; Pred. No. 1e-17;
Matches 58; Conservative 0; Mismatches
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                                                                                                                                                                                                 / Match 6.6%; Score 251; DB 2; Length 115; Local Similarity 53.1%; Pred. No. 4.6e-14; Nes 43; Conservative 16; Mismatches 22; Indels
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Maximum Match 100%
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re greater than or equal to the score of the result being printed,
is derived by analysis of the total score distribution.
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1: /RMC_Celerra_SIDS3/ptodata/2/pubpaa/US07_PUBCOMB.pep:*

2: /RMC_Celerra_SIDS3/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

2: /RMC_Celerra_SIDS3/ptodata/2/pubpaa/US09_PUBCOMB.pep:*

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5: /RMC_Celerra_SIDS3/ptodata/2/pubpaa/US11_PUBCOMB.pep:*
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US-10-104-047-3162
US-10-153-668-354
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US-10-231-778-224
US-10-231-778-221
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US-10-425-114-7283
US-10-425-114-7283
US-10-425-115-281072
US-10-310-154-599
US-10-425-115-281072
US-10-437-963-146048
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Sequence 225, App
Sequence 216, App
Sequence 3162, App
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Sequence 56, Appl
Sequence 14073, A
Sequence 11, Appl
Sequence 219717,
Sequence 7283, App
Sequence 7283, Appl
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Sequence 221, Appli
Sequence 274, Appli
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	69819, A	57460, A	69287, A	57969, A	57452, A	15, Appl	21, Appl	15, Appl	14, Appl	5, Appli	1, Appli	14, Appl	 Appli 	Appli	57456, F	281076,	15015, 2	Z, Appli

ALIGNMENTS

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US-10-773-302-2

Sequence 2, Application US/10773302

Publication No. US2005009980A1

GENERAL INFORMATION:

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APPLICANT: Laible, Gotz

APPLICANT: Laible, Gotz

APPLICANT: Bisenhaber, Frank

APPLICANT: Rea, Stephen

IITLE OF INVENTION: Chromatin-Regulator Genes

FILE REFERENCE: 0652.1670001

CURRENT FILING DATE: 2004-02-09

PRIOR APPLICATION NUMBER: US/09/589,892

PRIOR FILING DATE: 1200-06-09

PRIOR APPLICATION NUMBER: US 08/945,988

PRIOR FILING DATE: 1997-11-10

PRIOR APPLICATION NUMBER: DCT/EP96/01818

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PRIOR APPLICATION NUMBER: DT/EP96/01818

PRIOR FILING DATE: 1996-05-02

PRIOR PILING DATE: 1995-05-10

NUMBER: OF SEQ ID NOS: 21

SOFTWARE: Patentin version 3.2

SEQ ID NO 2

LENGTH: 746

TYPE: PRT

ORGANISM: Homo sapiens
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Best Local Similarity
Matches 699; Conserv
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Gaps

60 0

180 180

120 120 60

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Sequence 232, Application US/10153668

Publication No. US20030092616A1

GENERAL INFORMATION:
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APPLICANT: MATSUDA, Akio
APPLICANT: MATSUDA, Akio
APPLICANT: MIRAMATSU, Shuji
APPLICANT: ISHIZAWA, KBDYA
FILLE OF INVENTION: STATE Activating Gene
FILLE REFERENCE: 1254-0207P
CURRENT FILING DATE: 2002-05-24
PRIOR APPLICATION NUMBER: US 60/293,172
PRIOR APPLICATION NUMBER: US 60/293,172
PRIOR APPLICATION NUMBER: US 60/316,031
PRIOR PILING DATE: 2001-08-31
PRIOR PILING DATE: 2001-08-31
PRIOR APPLICATION NUMBER: US 60/328,403
PRIOR APPLICATION NUMBER: US 60/328,403
PRIOR APPLICATION NUMBER: JP 2001-157043
PRIOR APPLICATION NUMBER: JP 2001-157043
PRIOR APPLICATION NUMBER: JP 2001-260681
PRIOR APPLICATION NUMBER: JP 2001-260681
PRIOR PILING DATE: 2001-08-30
PRIOR FILING DATE: 2001-08-30
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US-10-153-668-232
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Similarity 99.9%;
98; Conservative
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                                                                        Score 3802; DB 4;
Pred. No. 2.2e-265;
0; Mismatches 1;
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Publication No. US20030126647A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                    APPLICANT: Bilodeau, Pierre
APPLICANT: Chaudhury, Abdul M.
APPLICANT: Dennis, Elizabeth S.
APPLICANT: Koltunow, Anna M.G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
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APPLICANT: Luo, Ming
APPLICANT: Luo, Ming
APPLICANT: Peacock, William J.
TITLE OF INVENTION: Method for inducing seed development by
TITLE OP INVENTION: expression of the FIS2 gene
FILE REFERENCE: 72-99A
CURRENT APPLICATION NUMBER: US/10/231,778
CURRENT FILING DATE: 2002-11-08
PRIOR APPLICATION NUMBER: 09/398,237
PRIOR APPLICATION NUMBER: 09/398,237
PRIOR FILING DATE: 1999-09-20
PRIOR APPLICATION NUMBER: 60/101,184
PRIOR PILING DATE: 1998-09-21
PRIOR APPLICATION NUMBER: AU PF6061
PRIOR APPLICATION NUMBER: AU PF6062
PRIOR APPLICATION NUMBER: AU PF6062
PRIOR APPLICATION NUMBER: AU PF6063
PRIOR PILING DATE: 1998-09-22
PRIOR APPLICATION NUMBER: AU PF6063
PRIOR PILING DATE: 1998-09-22
PRIOR APPLICATION NUMBER: AU PF6063
PRIOR PILING DATE: 1998-09-22
PRIOR APPLICATION NUMBER: AU PF6063
PRIOR PILING DATE: 1998-09-22
PRIOR APPLICATION NUMBER: AU PF6063
PRIOR PILING DATE: 1998-09-22
PRIOR APPLICATION NUMBER: AU PF6063
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RESULT 4
US-10-295-027-710
US-10-295-027-710
; Sequence 710, Application US/10295027
; Publication No. US20030232350A1
; GENERAL INFORMATION:
; APPLICANT: Afar, Daniel
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PRIOR APPLICATION NUMBER: AU POI
PRIOR FILING DATE: 1999-07-01
NUMBER OF SEQ ID NOS: 239
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 225
LENGTH: 746
LENGTH: 746
TYPE: PRI
ORGANISM: Artificial Sequence
FEATURE:
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Best Local Similarity 99.9%;
Matches 698; Conservative
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Pred. No. 2.2e-265;
0; Mismatches 1;
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PRIOR FILING DATE: 2002-02-12
PRIOR FILING DATE: 2002-02-12
Remaining Prior Application data re
ROTTMARE: PATENTIN VER: 2.1
SEQ ID NO 710
LENGTH: 746
TYPE: PRT
ORGANISM: Homo sapiens
US-10-295-027-710
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APPLICANT: Gish, Kurt C.
APPLICANT: Gish, Kurt C.
APPLICANT: Hevezi, Peter A.
APPLICANT: Mack, David H.
APPLICANT: Mack, David H.
APPLICANT: Mack, David H.
APPLICANT: Matson, Susan R.
APPLICANT: Watson, Susan R.
APPLICANT: Watson, Susan R.
APPLICANT: Bos Biotechnology, Inc.
TITLE OF INVENTION: Methods of Diagnosis of Cancer, Compositions and TITLE OF INVENTION: Methods of Screening for Modulators of CURRENT APPLICATION NUMBER: US/10/295,027
CURRENT FILING DATE: 2002-11-13
PRIOR APPLICATION NUMBER: US 60/350,666
PRIOR FILING DATE: 2000-09-15
PRIOR APPLICATION NUMBER: US 60/350,666
PRIOR FILING DATE: 2001-11-15
PRIOR APPLICATION NUMBER: US 60/332,464
PRIOR FILING DATE: 2001-11-21
PRIOR APPLICATION NUMBER: US 60/332,464
PRIOR FILING DATE: 2001-11-21
PRIOR APPLICATION NUMBER: US 60/337,393
PRIOR APPLICATION NUMBER: US 60/337,393
PRIOR APPLICATION NUMBER: US 60/337,393
PRIOR APPLICATION NUMBER: US 60/340,376
PRIOR PILING DATE: 2001-11-29
PRIOR APPLICATION NUMBER: US 60/347,211
PRIOR APPLICATION NUMBER: US 60/347,319
PRIOR APPLICATION NUMBER: US 60/347,349
PRIOR APPLICATION NUMBER: US 60/347,349
PRIOR APPLICATION NUMBER: US 60/347,349
PRIOR APPLICATION NUMBER: US 60/355,250
PRIOR PILING DATE: 2002-01-10
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Pred. No. 2.2e
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240 240 180

420 420 360 360 300

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APPLICANT: Licauchury, Abdul M.
APPLICANT: Dennis, Elizabeth S.
APPLICANT: Luo, Ming
APPLICANT: Luo, Ming
APPLICANT: Luo, Ming
APPLICANT: Luo, Ming
APPLICANT: Peacock, William J.
TITLE OF INVENTION: Method for inducing seed development by down-regulating
TITLE OF INVENTION: Method for inducing seed development by down-regulating
TITLE OF INVENTION: More soon of the FIS2 gene
FILE REPERENCE: 72-98A
CURRENT FILING DATE: 2002-11-08
CURRENT FILING DATE: 2002-11-08
PRIOR APPLICATION NUMBER: 09/398,237
PRIOR APPLICATION NUMBER: 60/101,184
PRIOR APPLICATION NUMBER: 60/101,184
PRIOR FILING DATE: 1998-09-21
PRIOR APPLICATION NUMBER: AU PP6061
PRIOR APPLICATION NUMBER: AU PP6062
PRIOR APPLICATION NUMBER: AU PP6062
PRIOR FILING DATE: 1998-09-22
PRIOR APPLICATION NUMBER: AU PP6063
PRIOR FILING DATE: 1998-09-22
PRIOR APPLICATION NUMBER: AU PP6063
PRIOR FILING DATE: 1998-09-22
PRIOR APPLICATION NUMBER: AU PP6063
PRIOR FILING DATE: 1998-09-22
PRIOR APPLICATION NUMBER: AU PP6063
PRIOR FILING DATE: 1998-09-22
PRIOR APPLICATION NUMBER: AU P01345
PRIOR APPLICATION NUMBER: AU P01345
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US-10-231-778-226
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                                                                                                                                                                                            ; OTHER INFORMATION: Description of Artificial Sequence: Ezhl peptide ; OTHER INFORMATION: fragment US-10-231-778-226
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Best Local S
Matches 686
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                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: AU PQ1346
PRIOR FILING DATE: 1999-07-01
NUMBER OF SEQ ID NOS: 239
SOPTWARE: PatentIn Ver. 2.0
SEQ ID NO 226
LENGTH: 746
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                                                                                                                                    Local Similarity
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                                                          MGQTGKKSEKGPVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILERTEILNQEW
  KQRRIQPVHILTSVSSLRGTRECSVTSDLDFPTQVIPLKTLNAVASVPIMYSWSPLQQNF 120
                                        MGQTGKKSEKGPVCWRKRVKSEYMRLRQLKRFRRADEVKTMFSSNRQKILERTETLNQEW
                                                                                                                  Conservative
                                                                                                                                    98.5%;
98.1%;
                                                                                                              Score 3750; DB 4;
pred. No. 1.3e-261;
7; Mismatches 6;
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| Sequence 3162, Application US/10104047
| Publication No. US20030236392A1
| GENERAL INFORMATION: NO. US20030236392A1e1 full length cDNA
| TITLE OF INVENTION: NO. US20030236392A1e1 full length cDNA
| FILE REFERENCE: H1-A0105
| CURRENT APPLICATION NUMBER: US/10/104,047
| CURRENT FILING DATE: 2002-03-25
| PRIOR APPLICATION NUMBER: PRIOR PELICATION NUMBER: PRIOR FILING DATE:
| WIMBER OF SEQ ID NOS: 4096
| SOFTWARE: Patentin Ver. 2.1
| SEQ ID NO 3162
| LENGTH: 707
| TYPE: PRT
| ORGANISM: Homo sapiens
| US-10-104-047-3162
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Local Similarity 94.3%;
hes 659; Conservative
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                                        MGQTGKKSEKGPVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILERTEILNQEW
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    KQRRIQFVHILTSVSSLRGTRECSVTSDLDFFTQVIFLKTLNAVASVPIMYSWSPLQQNF 120
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Pred. No. 1.2e-248;
0; Mismatches 1;
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660 660 600 600 540 540 480

707, 39;

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APPLICANT: SUGIYAMA, TOMOYASU
APPLICANT: OTSUKI, TETSUJI
APPLICANT: WAKAMATSU, AI
APPLICANT: SATO, HIROYUKI
APPLICANT: ISHII, SHIZUKO
APPLICANT: ISHII, SHIZUKO
APPLICANT: ISONO, YUUN-ICHI
APPLICANT: HIGAI, KAGRU
APPLICANT: HIGAI, KAGRU
APPLICANT: MAGAI, KRIICHI
APPLICANT: MAGAI, KRIICHI
APPLICANT: TAMECHIKA, ICHIRO
APPLICANT: TAMECHIKA, ICHIRO
APPLICANT: YOSHIKAWA, TSUTOMU
APPLICANT: VOSHIKAWA, TSUTOMU
APPLICANT: MAGAHARI, KENJI
APPLICANT: MAGAHARI, KENJI
APPLICANT: MAGHARI, KENJI
APPLICANT: MAGHARI, KENJI
APPLICANT: MAGHARI, KENJI
APPLICANT: MAGHARI, WOTOYUKI
APPLICANT: MASUHO, YASUHIKO
TITLE OF INVENTION: NOVE1 full length CDNA
FILE REPERENCE: 084335-0191
CURRENT APPLICATION NUMBER: US 60/350,978
PRIOR FILING DATE: 2002-01-25
                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 7
US-11-072-512-3162
                                                                                                                                                                                                                                                                                                                                                                                            Sequence 3162, Application US/11072512 Publication No. US20060029945A1 GENERAL INFORMATION:
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 RESULT 8
US-10-153-668-354
; Sequence 354, Application US/10153668
; Publication No. US20030092616A1
; GENERAL INFORMATION:
; APPLICANT: HONDA, Goichi
; APPLICANT: MATSUDA, Akio
; APPLICANT: MURAMATSU, Shuji
; APPLICANT: ISHIZAWA, Kenya
; TITLE OF INVENTION: STAT6 Activating Ge
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; PRIOR FILING DATE: 2001-11-05
; NUMBER OF SEQ ID NOS: 4096
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 3162
; EENGTH: 707
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-072-512-3162
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al Similarity 94.3%;
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Pred. No. 1.2e-248;
0; Mismatches 1;
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GENERAL INFORMATION:

APPLICANT: SPYCEK, et al.

IITLE OF INVENTION: NOVEL HUMAN PROTEINS, PO

IITLE OF INVENTION: AND METHODS

IITLE OF INVENTION: OF USING THE SAME

FILE REFERENCE: 21404-322D

CURRENT APPLICATION UMBER: US/10/115,482

CURRENT FILING DATE: 2002-04-05

PRIOR APPLICATION NUMBER: 60/281,086
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PRIOR PILING DATE: 2001-05-25
PRIOR PILING DATE: 2001-05-25
PRIOR PILING DATE: 2001-08-31
PRIOR APPLICATION NUMBER: US 60/316,031
PRIOR APPLICATION NUMBER: US 60/328,403
PRIOR APPLICATION NUMBER: US 60/328,403
PRIOR PILING DATE: 2001-01-12
PRIOR PILING DATE: 2001-05-25
PRIOR PILING DATE: 2001-05-25
PRIOR PILING DATE: 2001-05-30
PRIOR APPLICATION NUMBER: JP 2001-260661
PRIOR PILING DATE: 2001-08-30
PRIOR APPLICATION NUMBER: JP 2001-313175
                                                                                                                                                  RESULT 9
US-10-115-482-56
Sequence 56, Application US/10115482
Publication US20030212257A1
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PRIOR FILING DATE: 2001-10-10
NUMBER OF SEQ ID NOS: 488
SOPTWARE: PatentIn Ver. 2.0
SEQ ID NO 354
LENGTH: 517
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; ORGANISM: Homo
US-10-153-668-354
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CURRENT APPLICATION NUMBER: US/10/153,668
CURRENT FILING DATE: 2002-05-24
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Pred. No. 5.2e-179;
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LENGTH: 723
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PRIOR FILING DATE: 2001-06-08
PRIOR APPLICATION NUMBER: 60/299,128
PRIOR FILING DATE: 2001-06-08
PRIOR FILING DATE: 149
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DR APPLICATION NUMBER: 60/281,906
DR FILING DATE: 2001-04-05
DR FILING DATE: 2001-04-07
DR APPLICATION NUMBER: 60/282,934
DR FILING DATE: 2001-04-10
DR APPLICATION NUMBER: 60/283,512
DR FILING DATE: 2001-04-12
DR FILING DATE: 2001-04-12
DR FILING DATE: 2001-04-19
DR FILING DATE: 2001-04-19
DR FILING DATE: 2001-04-19
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APPLICATION NUMBER: 60/291,134
FILING DATE: 2001-05-15
APPLICATION NUMBER: 60/282,020
FILING DATE: 2001-04-06
FILING DATE: 2001-04-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/285,890 FILING DATE: 2001-04-23 APPLICATION NUMBER: 60/286,068 FILING DATE: 2001-04-24 APPLICATION NUMBER: 60/286,292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 2001-04-03
APPLICATION NUMBER: 60/281,136
FILING DATE: 2001-04-03
APPLICATION NUMBER: 60/281,863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 60/294,771
FILING DATE: 2001-05-31
APPLICATION NUMBER: 60/296,965
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FILING DATE: 2001-05-17
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APPLICATION NUMBER: 60/287,213
FILING DATE: 2001-04-27
APPLICATION NUMBER: 60/288,257
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  WRXRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILERTEILNQEWKQRRIQPVHILTSV
          HHIVSASCSNASASAVAETKEGDSDRDTG-
                                                                                                PFHATPNTYKRKNTETALDNKPCGPQCYQHLEGAKEFAAALTAERIKTPPKRPGGRRRGR
                                                                                                                                                DDMKERYRELTEMSDPNALPPQCTPNIDGPNAKSVQREQSLHSFHTLFCRRCFKYDCFLH
                                                                                                                                                                EELKEKYKELTEQQLPGALPPECTPNIDGPNAKSVQREQSLHSFHTLFCRRCFKYDCFLH
                                                                                                                                                                                                                 NDTSDGKQDDSKBDLPVTRKRKKHAIEGNK--KSSK--KQFPNDMIFSAIASMFPENGVP
                                                                                                                                                                                                                                    -----DDDDGDDPBEREEKQKOLEDHRDDKESRPPRKFPSDKIFEAISSMFPDKGTA
                                                                                                                                                                                                                                                                                                                                                         SGHPFLKKCTIESIFPGFASQHMLMRSLLNTVALVPIMYSWSPLQQNFMVBDBTVLCNIFY
                                                                                                                                                                                                                                                                                                                                                                              SSLRGTRECSVTSDL-DFPTQVIFLKTLNAVASVPIMYSWSPLQQNFMVEDETVLHNIFY
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                                LPNNSSRPSTPTIN-VLESKDTDSDREAGTETGGENNDKEEEEKKDETSSSSEANSRCQT
                                                                              PHATPNVYKRKNKEIKIEPEPCGTDCFLLLEGAKEYA-----MLHNPRSKCSGRRRRR
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DB 4; 120;

723; 77;

Indels Length

Gaps

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                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: DETECTION KIT, SUCH AS NUCTITILE OF INVENTION: ARRAYS, FOR DETECTING EXITITIES OF INVENTION: DROSOPHILA GENES.

FILE REFERENCES: CLOOO728

CURRENT APPLICATION NUMBER: US/11/097,143

CURRENT FILING DATE: 2005-04-04

PRIOR PILING DATE: 1999-10-05

PRIOR APPLICATION NUMBER: 60/160,191

PRIOR APPLICATION NUMBER: 60/161,932

PRIOR FILING DATE: 1999-10-19

PRIOR PILING DATE: 1999-10-28

PRIOR PILING DATE: 1999-10-28

PRIOR PILING DATE: 1999-11-29

PRIOR APPLICATION NUMBER: 60/164,769

PRIOR APPLICATION NUMBER: 60/173,383

PRIOR PILING DATE: 1999-12-28

PRIOR APPLICATION NUMBER: 60/175,693

PRIOR PILING DATE: 2000-01-2

PRIOR APPLICATION NUMBER: 60/184,831

PRIOR APPLICATION NUMBER: 60/184,831

PRIOR PILING DATE: 2000-02-24

PRIOR PILING DATE: 2000-02-24
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US-11-097-143-14073
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Best Local S
Matches 394
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SEQ ID NO 14073
LENGTH: 760
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Publication No. US20050208558A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: 60/191,637 PRIOR FILING DATE: 2000-03-23 NUMBER OF SEQ ID NOS: 43008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Venter, J. Craig APPLICANT: et al.
                                                                                                                                                    Local Similarity hes 394; Conserv
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EDETVLHNIPYMGDEVLDQDGTFIBELIKNYDGKVHGDRECGFINDEIFVELVNAL----
                                         YDPPHV-----DCVKRAEVISYNGIPSGPQKVPICVINAVTPIPTMYTWAETQQNFMV
                                                                                                                      SEKGPVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILERTEIL---NQEWKQRR 64
                                                                IQPVHILTSVSSLRGTRECSVTSDLDFPT--QVIPLKTLNAVASVPIMYSWSPLQQNFMV 122
                                                                                         QPCDSSCPCVIAQNFCEKFCQCSSECQNRFPGCRCKAQCNTKQCPCYLAVRECDPDLCLT
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                                                                                                                                                 51.5%; Score 1959.5; DB 6; 52.2%; Pred. No. 1.9e-132; tive 84; Mismatches 170;
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                                                        KFCQCSSECQNRFFGCRCKAQCNTKQCFCYLAVRECDFDLCLTCGAADHWDSKNVSCKNC
                                                                                                                                                                                                                      DFTPPRKKKKKQRLWSLHCRKIQLKKDSSSNHVYNYTPCDHPGHPCDMNCSCIQTQNFCB
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                                                                                                                                          KPCNCSSDCQNRPPGCRCKAQCNTKQCPCYLAVRECDPDLCQACG-ADQPKLTKITCKNV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ETALDNKPCGPQCYQHLEGAKEFAAALTAERIKTPPKRPGGRRRGRLPNNSSRPSTPTIN 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SKELEBAAPGTATATKTETLAKSKQGEDDGVVDVDADGESPMKLEKTDSKGDLTEVEKKE
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APPLICANT: KOLUNOW, Anna M.G.
APPLICANT: LUO, Ming
APPLICANT: LUO, Ming
APPLICANT: Peacock, William J.
TITLE OF INVENTION: Method for inducing seed development by FILE REFERENCE: 72-98A
CURRENT APPLICATION NUMBER: US/10/231,778
CURRENT FILING DATE: 2002-11-08
FRIOR APPLICATION NUMBER: 09/398,237
FRIOR APPLICATION NUMBER: 09/398,237
FRIOR APPLICATION NUMBER: 60/101,184
FRIOR APPLICATION NUMBER: 60/101,184
FRIOR APPLICATION NUMBER: AU P6061
FRIOR FILING DATE: 1998-09-22
FRIOR APPLICATION NUMBER: AU P6062
FRIOR APPLICATION NUMBER: AU P6062
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FRIOR APPLICATION NUMBER: AU P6063
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APPLICANT: Bilodeau, Pierre
APPLICANT: Chaudhury, Abdu
APPLICANT: Dennis, Elizabe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 224, Application US/10231778 Publication No. US20030126647A1
OR APPLICATION NUMBER: AU PP6062
OR FILING DATE: 1998-09-22
OR APPLICATION NUMBER: AU PP6063
OR FILING DATE: 1998-09-22
OR APPLICATION NUMBER: AU PQ1345
OR APPLICATION NUMBER: AU PQ1346
OR APPLICATION NUMBER: AU PQ1346
OR APPLICATION NUMBER: AU PQ1346
OR FILING DATE: 1999-07-01
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Dennis, Elizabeth S.
Koltunow, Anna M.G.
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δ

down-regulating

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NUMBER OF SEQ ID NOS: 239
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 224
LENGTH: 760
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
RESULT 12
US-10-773-302-11
; Sequence 11, Application US/10773302
; Publication No. US20050089880A1
; GENERAL INFORMATION:
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; OTHER INFORMATION:
US-10-231-778-224
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEKGPVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILERTEIL---NQEWKQRR
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                                                                                                     FLFNLNNDFVVDATRKGNKIRFANHSVNPNCYAKV
                                                                                                                                                                             SIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNEFISEYCGEIISQDEADRRGKVYDKYMCS
                                                                                                                                                                                                                                                                                  DFTPPRKKKKKKQRLWSLHCRKIQLKKDSSSNHVYNYTPCDHPGHPCDMNCSCIQTQNFCE
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                                                                                                                                                                 KFCNCSSDCQNRFPGCRCKAQCNTKQCPCYLAVRECDPDLCQACG-ADQFKLTKITCKNV
                                                                                                                                                                                                                                                  KFCQCSSECQNRFFGCRCKAQCNTKQCFCYLAVRECDFDLCLTCGAADHWDSKNVSCKNC
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Pred. No. 6.1e-132;
94; Mismatches 170;
                                                                                                                                     699
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; ORGANISM: Drosophila
US-10-773-302-11
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FILE REFERENCE: 0652.1670001
CURRENT APPLICATION UNMEBR: US/10/773,302
CURRENT FILING DATE: 2004-02-09
PRIOR APPLICATION NUMBER: US/99/589,892
PRIOR PILING DATE: 2000-06-09
PRIOR APPLICATION NUMBER: US 08/945,988
PRIOR APPLICATION NUMBER: US 08/945,988
PRIOR PELING DATE: 1997-11-10
PRIOR PELING DATE: 1997-11-10
PRIOR PELING DATE: 1996-05-02
PRIOR APPLICATION NUMBER: PCT EEP96/01818
PRIOR APPLICATION NUMBER: DE 195 16 776.7
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NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn version 3.2
SEQ ID NO 11
LENGTH: 760
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APPLICANT: Laible, G
APPLICANT: O'Carroll
APPLICANT: Bisenhabe
APPLICANT: Rea, Step
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches 395;
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EDETVLHNI PYMGDEVLDQDGTFIEELIKNYDGKVHGDRECGFINDEIFVELVHALMRSY
                                                                                                                                     YDPPHV-----DCVKRAEVTSYNGIPSGPQKVPICBINAVTPIPTMYTWAPTQQNFMV
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                  ETALDNKPCGPQCYQHLEGAKEFAAALTAERIKTPPKRPGGRRRGRLPNNSSRPSTPTIN
                                                                                                                                                                                                                                                                                                                    -ERPOECTPNIDGIKAESVSRERTMHSFHTLPCRRCFKYDCFLHRLQGHAGPNLQKRRYP
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                                                                                                                                                                                                 ----IDSCNEASSEDSNDSNSQFSNKDFNHENSKDNGLTVNSAAVAEINSIMAGMMNI
                                                                                                                                                                                                                              VLESKOTOSDREAGTETGGENNDK-----EBEEKKOBTSSSSEANSRCQTPIKMKPNI
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Rea, Stephen
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O'Carroll, Donal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         50.8%; Score 1934.5; DB 5; ilarity 52.1%; Pred. No. 1.2e-130; Conservative 85; Mismatches 165;
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APPLICANT: LA ROSA THOMAS J
APPLICANT: Kovalic David K
APPLICANT: Kovalic David K
APPLICANT: Chou Yihua
APPLICANT: Cao Yongwei
TITLS OF INVENTION: Soy Nucleic Acid Molecul
TITLS OF INVENTION: Plants and Uses Thereof
FILE REFERENCE: 38-21(5323)B
CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 285684
SEQ ID NO 219717
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US-10-231-778-221
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US-10-424-599-219717
; Sequence 219717, Application US/10424599
; Publication No. US20040031072A1
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                                                                                                                                                            Sequence 221, Application US/10231778
Publication No. US20030126647A1
GENERAL INFORMATION:
APPLICANT: Bilodeau, Pierre
APPLICANT: Chaudhury, Abdul M.
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Best Local
                                         APPLICANT: Dennis, Elizabeth S.
APPLICANT: Koltunow, Anna M.G.
APPLICANT: Luo, Ming
APPLICANT: Luo, Ming
APPLICANT: Peacock, William J.
TITLE OF INVENTION: expression of the FIS2 gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
FILE REFERENCE: 72-98A CURRENT APPLICATION NUMBER: US/10/231,778 CURRENT FILING DATE: 2002-11-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
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                                                                                                                        Chaudhury, Abdul M.
Dennis, Elizabeth S.
Koltunow, Anna M.G.
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Pred. No. 6.7e-79;
7; Mismatches 5;
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SOFTWARE: PatentIn Ver. 2
SEQ ID NO 221
LENGTH: 856
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Best Local Similarity
Matches 231; Conser
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ORGANISM: Artificial Sequence
FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 1998-09-21
APPLICATION NUMBER: AU PP6061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: AU PP6063
FILING DATE: 1998-09-22
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: AU PP6062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 09/398,237
FILING DATE: 1999-09-20
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                                                                                                                          TYYDNFCAIAR--LIGTKTCRQVYEF-RVKESSIIAPA-----PAEDVD-TP
                                                                                                                                                              EVGEPIPDNSVHDGGSSICQPHHGSGNGAIIIAEMSETSRP--STEWNPIEKDLYLKGVE
                                                                                                                                                                                                                                    SNDLPNLSNKKQKTAASDTKMSFVNSVPSLD--QALDSTKGDQGGTTDNKVNRDSBADAK
                                                                                                                                                                                                                                                                                                                                                                                 VFDCRLHGCSQPLISASEKQPYWSDYEGDRKPCSKHCYLQLKAVREVPETCSNFASKAEE
                                                                                                                                                                                                                                                                                                                                                                                                                     KYDCFLHPFHATPNTYKRKN---TETALDNKPCGPQCYQHLEGAKE-----FAA----
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                                                    PR----KKKRHRLW-----AAHCRKIQLKKDGSSNHVYNYQPCDHPRQPCDSSCPCVI 538
                                                                                        I FGRNSCLIARNLLSGLKTCLDVSNYMRENEVSVFRRSSTPNLLLDDGRTDPGNDNDEVP
                                                                                                                                                                                                K-----DETSSSSEANSRCQTP------IKMKPNIEPPENVEWSGAEASMFRVLIG
                                                                                                                                                                                                                                                                      -GRLPNNSSRP-----STPTINVLESKDTDSDREAGTETGGENNDKEEEEK 400
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                  PRTRLFRRKGKTRKLKYSTKSAGHPSVWKRIAGGKNQSCKQYTPCG-CLSMCGKDCPCLT
                                                                                                                                                                                                                                                                                                           KASEEECSKAVSSDVPHAAASGVSLQVEKTDIGIKNVDSSSGVEQEHGIRGKREVPILKD
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27.6%; Pred. No. 6.3e-43;
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RESULT 15

US-10-425-114-72833
US-10-425-114

Sequence 72833, Application US/10425114

Publication No. US20040034888A1

GENERAL INFORMATION:
APPLICANT: Liu, Jingdong
APPLICANT: Kovalic, David K.
APPLICANT: Screen, Steven E
APPLICANT: Tabaska, Jack E
APPLICANT: Tabaska, Jack E
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Phlants and Uses Thereof for Plant Improvement
FILE REPERENCE: 38-21(53313)B
CURRENT APPLICATION NUMBER: US/10/425,114
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 73128
SEQ ID NO 72833
LENGTH: BEF
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US-10-425-114-72833
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Local Similarity 27.6%; Pred. No. 6.5e-43;
hes 231; Conservative 110; Mismatches 256; Indels 241
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                                                                                                                                                                      KYDCFLHPFHATPNTYKRKN----TETALDNKPCGPQCYQHLEGAKE-----FAA----
                                                                                                                                                                                                       DASDILERYNELKLKD-----KONTEEFSNSGFKLGISLEKGLGAALDSFDNLFCRRCL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EEPEPEEEKREFSEG-----EDSIIWLIGQEY---GMGEEVQDALCQLLSV 240
                                                                                                                                                                                                                                                                                                                                           YTTWIFLDRNQRMAB-----DQSVVGRR-----QIYYB-----QHGGETLICSDSE 197
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SNDLPNLSNKKQKTAASDTKMSFVNSVPSLD--QALDSTKGDQGGTTDNKVNRDSEADAK
                                  -GRLPNNSSRP------STPTINVLESKOTDSDREAGTETGGENNDKEEBEK
                                                                  KASEEECSKAVSSDVPHAAASGVSLQVEKTDIGIKNVDSSSGVEQEHGIRGKREVPILKD
                                                                                                                                    VFDCRLHGCSQPLISASEKQPYWSDYEGDRKPCSKHCYLQLKAVREVPETCSNFASKAEE
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                                                                                                    ----ALTAER----IKTPPKRPG-----GRRR-----
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                                                             AQNFCEKFCQCSSECQNRFFGCRC-KAQCNTKQCFCYLAVRECDFDLCLTCGAADHWDSK 597
                                                                                                                                                                                                                             TYYDNFCAIAR--LIGTKTCROVYEF-RVKESSIIAPA------PAEDVD-TP
TGELISHHEADKRGKIYDRANSSFLFDLNDQYVLDAQRKGDKLKFANHSAKPNCYAKV
          CGBIISQDEADRRGKVYDKYMCSFLFNLANDFVVDATRKGNKIRFANHSVNPNCYAKV
                                           - USCGDGSLGEAPRRGEGQCGNWRLLLRQQQRILLGKSDVAGWGAFLKNSVSKNBYLGEY
                                                                                                                                                   PRIKLPRRKGKIRKLKYSIKSAGHPSVWKRIAGGKNQSCKQYTPCG-CLSMCGKDCPCLT
                                                                                                                                                                          PR----KKKRKHRLW-----AAHCRKIQLKKOGSSNHVYNYQPCDHPRQPCDSSCPCVI 538
                                                                                                                                                                                                                                                      EVGEPIPDNSVHDGGSSICOPHHGSGNGAIIIAEMSETSRP--STEWNPIEKDLYLKGVE
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Search completed: August 11, 2006, 22:49:56 Job time: 121.999 secs

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Result
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Listing first 45 summaries
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Perfect score:
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        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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35695, A

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35695, A

35696, A

3580, A

3680, A

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Sequence 1, Application US/10539630
; Publication No. US20060104981A1
; GENERAL INFORMATION:
; APPLICANT: Takeda Chemical Industries, Ltd.
; TITLE OF INVENTION: Preventing and treating age
; FILE REFERENCE: 3130WOODE
; CURRENT APPLICATION NUMBER: US/10/539,630
; CURRENT FILING DATE: 2005-06-17
; PRIOR APPLICATION NUMBER: JP2002-373144
; PRIOR FILING DATE: 2002-12-24
; NUMBER OF SEQ ID NOS: 14
; SEQ ID NO 1
; LENGTH: 751
; TYPE: PRT
; ORGANISM: Human
US-10-539-630-1

agent for cancer

45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26
179	179.5	184	184	188	188	188.5	189	189.5	189.5	191.5	192	192	192.5	192.5	193	193	195.5	195.5	196
4.7	4.7	4.8	4.8	4.9	4.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.1	5.1	5.1	5.1	5.1	5.1
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Sequence 5229, A	Sequence 14432,	Sequence 14719,	Sequence 31539,	Sequence 3355, A	Sequence 14362,	Sequence 10441,	Sequence 6904, A	13539	Sequence 15444,	Sequence 6172, A	Sequence 13204,	Sequence 2509, F	Sequence 56544,	Sequence 5638, 1	Sequence 21997,	Sequence 21998,	Sequence 4780, 1	Sequence 14838,	Sequence 43109,
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ALIGNMENTS

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415	GRLPNNSSRPSTPTINVLESKDTDSDREAGTETGGENNDKEEEEKKDETSSSSEANSRCQ	Qy . 356	_
360	NYSPHATPNTYKRKNTETALDNKPCGPQCYQHLEGAKEPAAALTAERIKTPPKRPGGRRR	Db 301	_
355	PFHATPNTYKRKNTETALDNKPCGPQCYQHLEGAKEFAAALTAERIKTPPKRPGGRRR	Qy 298	_
300	KEKYKELTEQQLPGALPPECTPNIDGPNAKSVQREQSLHSFHTLFCRRCFKYDCFLHRKC	Db 241	_
297	KEKYKELTEQQLPGALPPECTPNIDGPNAKSVQREQSLHSFHTLFCRRCFKYDCFLH	Qy 241	_
240	YNDDDDDDDDDFEREBKQKDLEDHRDDKESRPPRKFPSDKIFEAISSMFPDKGTAEEL	Db 181	_
240	YNDDDDDDDDDDBEREEKQKDLEDHRDDKESRPPRKFPSDKIFEAISSMFPDKGTAEEL	Qy 181	_
180	MVEDETVLHNI PYMGDEVLDQDGTF I BELI KNYDGKVHGDRECGF I NDE I FVELVNALGQ	Db 121	_
180	WVEDETVLHNI PYMGDEVLDQDGTFIBELIKNYDGKVHGDRECGFINDEIFVELVNALGQ	Qy 121	_
120	KORRIOPVHILTSVSSLRGTRECSVTSDLDFPTQVIFLKTLNAVASVPIMYSWSPLQQNF	Db 61	_
120	KQRRIQPVHILTSVSSLRGTRECSVTSDLDFPTQVIFLKTLNAVASVPIMYSWSPLQQNF	Qy 61	_
60	1 MGQTGKKSEKGPVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILERTEILNQEW	皮	_
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Publication No. US20060107345A1
GENERAL INFORMATION:
APPLICANT: ALEXANDROV, Nickolai et al.
TITLE OF INVENTION: SEQUENCE-DETERMINED DNA FRAGMENTS AND CORRESPONDING POLYPEPTIDES
TITLE OF INVENTION: ENCONDED THERBY
FILE REFERENCE: 2750-1579PUS2
CURRENT PILLING DATE: 2004-09-30
CURRENT PILING DATE: 2004-09-30
NUMBER OF SEQ ID NOS: 40252
SOFTWARE: PRIED TO NOS: 40253
SEQ ID NO 35469
LENGTH: 777
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                                                                SNREKGNIRSMTLVGTSGSKIISSVSABESTTPPSADTSBTBNASSDMPPSSLRKYKISK
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Pred. No. 2e-36;
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TITLE OF INVENTION: ENCONDED THERBY
FILE REFERENCE: 2750-15798US2
FILE REFERENCE: 2750-15798US2
CURRENT APPLICATION NUMBER: US/10/953,349
CURRENT FILING DATE: 2004-09-30
NUMBER OF SEQ ID NOS: 40252
SOFTWARE: Patentin version 3.3
SEQ ID NO 35468
LENGTH: 895
TYPE: PRT
ORGANISM: Zea mays subsp. mays
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US-10-953-349-35468
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US-10-953-349-35468
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Matches
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Publication No. US20060107345A1
GENERAL INFORMATION:
APPLICANT: ALEXANDROV, Nickolai et al.
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                                                                                                                                                                                                                                                         IEERSEVLFE-KNEKNSG----SSDKI-----
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CURRENT FILING DATE: 2004-09-30
NUMBER OF SEQ ID NOS: 40252
SOFTWARE: PatentIn version 3.3
SEQ ID NO 35467
LENGTH: 913
                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 35467, Application US/10953349
Publication No. US20060107345A1
GENERAL INFORMATION:
APPLICANT: ALEXANDROY, Nickolai et al.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: SEQUENCE-DETERMINED TITLE OF INVENTION: ENCONDED THERBY FILE REFERENCE: 2750-1579PUS2
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                                                                                      LPPECTPNIDGPNAKSVQREQSLHSFHTLFCRRCFKYDCFLH------PFHATPNTYK
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                                                                                                                                                                                                                                                                                                                       Conservative
                                                             ---SLD----KTM--DAVLDSFDNLFCRRCLVFDCRLHGCSQNLVFFTEKQPYSF-
·BPDENKKPCGRQCYLRWRGGFQBIHDVGLSGCATYNMESGTVSHKVDVSIMSESED
                                                                                                                                                                                                                                                                                                                                                                                                   subsp. mays
                                                                                                                                                                                                                                                                                                                     18.8%; Score 716; DB 6; Lo 28.2%; Pred. No. 2.4e-36; tive 95; Mismatches 204;
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Sequence 37881, Application US/10953349
Publication No. US20060107345A1
GENERAL INFORMATION:
APPLICANT: ALEXANDROV, Nickolai et al.
TITLE OF INVENTION: SEQUENCE-DETERMINED DNA FRA
TITLE OF INVENTION: ENCONDED THERBY
FILE REFERENCE: 2750-1579PUS2
CURRENT FILING DATB: 2004-09-30
NUMBER OF SEQ ID NOS: 40252
SOFTWARE: Patentin version 3.3
SEQ ID NO 37881
LENGTH: 894
TYPE: PRT
CRGANISM: Zea mays subsp. mays
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Best Local &
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                                                                                                                    KLEV-NRKTLORHSCSLFDVAAAAEVAS-RGTDGGNALSORAAEROCG--SDLANGIGER
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                              VL--HNIPY--MGDEVL---DQDGTFIEE-----LIKNYDGKV-----HGDRECGFIN 167
                                                                                                                                                                                QRSKRSDQGMGKDAAAASVVPI------HANLTQL-----IRQVQSGRLAYIKB
                                                                                                                                                                                                              QTGKKSEKG-----PVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILE
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 VVGRRRIYYDTVGNEALICSDSDEBIPEPEBEKHPFTKGEDHLIWRATQDHG-----LN
                                                                                      -----SVPIMYSWSPLQQN-FMVEDET
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                                                                                                                                                                                                                                           18.3%; Score 697.5; DB 6; 25.6%; Pred. No. 3.3e-35; tive 103; Mismatches 240;
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                                                                                           ; ORGANISM: Zea mays
US-10-953-349-37880
                                                                                                                                                                                                              Sequence 37880, Application US/10953349
publication No. US20060107345A1
GENERAL INFORMATION:
APPLICANT: ALEXANDROV, Nickolai et al.
TITLE OF INVENTION: SEQUENCE-DETERNINED
TITLE OF INVENTION: ENCONDED THERBY
FILE REFERENCE: 2750-1579PUS2
                                     Query Match
Best Local Similarity
Matches 240; Conserv
                                                                                                                              CURRENT APPLICATION NUMBER: US/10/953, CURRENT FILING DATE: 2004-09-30 NUMBER OF SEQ ID NOS: 40252 SOFTWARE: PatentIn version 3.3 SEQ ID NO 37880 LENGTH: 903
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            QTGKKSEKG-----
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                                         Conservative
eubep.
                                                    18.3%;
                                                                                                       mays
                                         103;
                                      Score 697.5; DB 6;
Pred. No. 3.3e-35;
3; Mismatches 240;
PVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSSNRQKILE
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                                          353;
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                RESULT 7

(S-10-953-349-37882)

(Sequence 37882, Application US/10953349)

(Publication No. US20060107345A1)

(GENERAL INFORMATION:

(APPLICANT: ALEXANDROV, Nickolai et al.

(TITLE OF INVENTION: SEQUENCE-DETERMINED DNA

(TITLE OF INVENTION: SEQUENCE-DETERMINED DNA

(TITLE OF INVENTION: MICKOLDED THERBY

(FILE REFERENCE: 2750-1579PUS2
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NUMBER OF SEQ ID NOS: 4025:
SOFTWARE: PatentIn version
SEQ ID NO 37882
LENGTH: 874
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                       EADRRGKVYDKYMCSFLFNLNNDFVVDATRKGNKIRFANHSVNPNCYAKV
                                                        EKYCGCSKSCKNKFRGCHCAKSQCRSRQCPCFAASRECDPDVCRNC-----WVSCGDGSL
                                                                                                                           EKFCQCSSECQNRFPGCRC-KAQCNTKQCPCYLAVRECDPDLCLTCGAADHWDS-----
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    KPCGHLCYLRFPQWREGFKEMHDDGLAGGATYTMESGTASQRVDVNVMYESEDSNRQKG

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Sequence 9237, Application US/11330403

Publication No. US20060159563A1

GENERAL INFORMATION:
APPLICANT: Abad, Mark S.
TITLE OF INVENTION: Genes and Uses for Plant Improvement
FILE REFERENCE: 38-21(53629)B

CURRENT APPLICATION NUMBER: US/11/330,403

CURRENT APPLICATION SERVED STATES

NUMBER OF SEQ ID NOS: 19250

SEQ ID NO 9237

LENGTH: 895
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; ORGANISM: Oryza
US-11-330-403-9237
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US-11-330-403-9237
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Best Local Similarity
Matches 200; Conserv
              648
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QDBADRRGKYYDKYMCSFLFNILNNDFVVDATRKGNKIRFANHSVNFNCYAKV
                                                                                              CCEKYCGCSKSCKNRFRGCHCAKSQCRSRQCPCFAASRECDPDVCRNC-----WVSCGDG
                                                                                                               FCEKFCQCSSECQNRFFGCRC-XAQCNTKQCFCYLAVRECDFDLCLTCGAADHWDS----
                                                                                                                                                  TRICRRKGRARKLKYTWKSAGHPTVRKRIGDGKQWYTQYNPCG-CQQMCGKDCACVENGT
                                                                                                                                                                          PRKKKKKHR-----LWAAHCRKIQLKKOGSSNHVY-NYQPCDHPRQPCDSSCPCVIAQN
                                                                                                                                                                                                        KNSCLIARNILSGIKTCMEVASYMYNNGAAMAKRPLSGKSILGDFABAEQGYMEQDLVAR
                                                                                                                                                                                                                                 DNFCAIAR--LIGTKTCRQVYEFRVKBSSIIAPAP-----AEDVDTP
                                                                                                                                                                                                                                                             DDPNKKISTKDMCAGSTTNTTENTLRDNNNNLFISNKEHSISHWSALERDLYLKGIEIFG
                                                                                                                                                                                                                                                                                                                                                                         ---SEDSNRDEDNIKSTSIVETSRSKIINSEYADKSVTPPPGDASETENVSPDMPLRTLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DPIVNEALIC-------SESDDDVPEPEEEKHVFTEGEDQLIWKATQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VIPLKTLNAVASVPIMYSWSPLQQN-FMVEDETVLHNIPYMGDEVLDQDGTFIEBLIKNY
                                                          -----KNVSCKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNEFISEYCGEIIS
                                                                                                                                                                                                                                                                                                                    RKKISKHASKSNDHSPDKRQKIYSSPPPFAMSVLNKQSVPEIGETCPDSIESAVDQLPSL
                                                                                                                                                                                                                                                                                                                                              REAGTETGGENNDKEEEEKKDETSSS-----SEANSRC----QTPIKMKPNI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DGKVHGDRECGFINDEIFVELVNALGQYNDDDDDDDDDDDPEERE-----
                                         SLGEPLARGDGYQCGNMKLLLKQQQRILLGKSDVAGWGAFIKNPVNRNDYLGEYTGELIS
                                                                                                                                                                                                                                                                                         BPP----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           PCGPQCY------KTPPKRPGGRRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DFQLFLGKTWDVALDSFDNLFCRRCLVFDCRLHGCSQNLVFPSEKQPYGHGLD8---NKR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DGPNAKSVQREQSLHSFHTLFCRRCFKYDCFLH-----PFHATPNTYKRKNTETALDNK
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Pred. No. 8.8e-33;
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HREADKRGKI YDRANSSFLFDLNEQYVLDAYRKGDKLKFANHSSNPNCYAKV

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US-10-953-349-35695
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US-10-953-349-35696
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SOPTWARE: PatentIn version 3.3
SEQ ID NO 35696
LENGTH: S11
                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 35695, Application US/10953349
Publication No. US20060107345A1
GENERAL INFORMATION:
APPLICANT: ALEXANDROV, Nickolai et al.
TITLE OF INVENTION: SEQUENCE-DETERMINED DNA FRAGMENTS AND CORRESPONDING POLYPEPTIDES
TITLE OF INVENTION: ENCONDED THERBY
FILE REFERENCE: 2750-1579PUS2
CURRENT APPLICATION NUMBER: US/10/953,349
CURRENT FILING DATE: 2004-09-30
NUMBER OF SEQ ID NOS: 40252
SOFTWARE: Patentin version 3.3
SEQ ID NO 35695
LENGTH: 513
TYPE: DET
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Publication No. US20060107345A1

GENERAL INFORMATION:

APPLICANT: ALEXANDROV, Nickolai et al.

APPLICANT: ALEXANDROV, Nickolai et al.

TITLE OF INVENTION: SEQUENCE-DETERMINED DNA FRAGMENTS AND CORRESPONDING POLYPEPTIDES
TITLE OF INVENTION: ENCONDED THERBY
FILE REFERENCE: 2750-1579FUS2

CURRENT APPLICATION NUMBER: US/10/953,349

CURRENT FILING DATE: 2004-09-30
                                                                                                                                                                                                                                                                                                 Query Match
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les 56; Conserv
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117
                                        644 BIISQDEADRRGKVYDKYMC---SFLFNLNNDFVVDATRKGNKIRFANHSVNPNC 695
                                                                                                                            584 LCLTCGAADHWDSKNVSCKNCSIQRGSKKHLLLAPSDVAGWGIFIKDPVQKNEFISBYCG
                                                                                                                                                                                                                 536 CVIAQNFCE-----KFCQCSSECQNRFPGCRCKAQCNTKQCPC-----YLAVRECDPD 583
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                                                                                  YC-RCG-----VYCKNQRFQKCQYARTRLVRTGGRGWGLVADENIMAGQFVIEYCG
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EVISWKEAKRAQAYET-QCLKDAYIIYLNADESIDATRKGNLARFINHSCQPNC
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ilarity 32.0%; Pred. No. 6.8e-07;
Conservative 22; Mismatches 71. T-3-1-
                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                           6.1%; Score 232; DB 6; Length 513; 32.0%; Pred. No. 6.9e-07;
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Sequence 355, Application US/10539228

Publication No. US20060154250A1

GENERAL INFORMATION:
APPLICANT: David W. Morris
APPLICANT: Marc S. Malandro
ITITLE OF INVENTION: Novel Compositions and Methods in FILE REFERENCE: CHIRO052-101 (PP023370.0003)

CURRENT APPLICATION NUMBER: US/10/539,228

CURRENT FILING DATE: 2005-06-17

PRIOR APPLICATION NUMBER: US/10/322,281

PRIOR PILING DATE: 2002-12-18

NUMBER OF SEQ ID NOS: 866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; Sequence 35694, Application US/10953349
; Publication No. US20060107345A1
; GENERAL INFORMATION:
APPLICANT: ALEXANDROV, Nickolai et al.
APPLICANT: ALEXANDROV, Nickolai et al.
TITLE OF INVENTION: ENCONDED THERBY
FITLE OF INVENTION: ENCONDED THERBY
; CURRENT APPLICATION HUMBER: US/10/953,349
; CURRENT APPLICATION HUMBER: US/10/953,349
; CURRENT FILING DATE: 2004-09-30
; NUMBER OF SEQ ID NOS: 40252
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 35694
; LENGTH: 551
; TYPE: PRT
; ORGANISM: Zea mays subsp. mays
US-10-953-349-35694
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US-10-539-228-355
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US-10-953-349-35694
밁
                                                                                                                                                                                                                                                                                                                   ; ORGANISM: Mus musculus US-10-539-228-355
                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 136; Conserv
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SEQ ID NO 355
LENGTH: 916
TYPE: PRT
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427
                                       283
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Similarity 32.0%;
                                     TLFCRRCFKYDCFLHPFHATPNTYKRKNTETALDNKP-CGPQCYQHLEGAKEFAAALTAE 341
                                                                              EEEVDIEAEDEVPEMQAPELEEPPLPMGARKLEGSPE-PPEEPGPNTQG----
                                                                                                     ABELK-EKYKELTEQQLP----GALP-----PECTPNIDGPNAKSVQREQSLHSFH 282
                                                                                                                                                          QSQDATTESSGSSERESSSSESESSSSSSEDEEB---MTVPGDRAEVPLGPRGPMRESLGT
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  -DMLL-----SPELPARETEEAQLPSPPEHGPESDLDMEPEPPPMLSLPLQ
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Pred. No. 3.4e-06;
59; Mismatches 240;
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US-11-330-403-16696
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                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 16696, Application US/11330403 Publication No. US20060159563A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 16696
                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Abad, Mark S.
TITLE OF INVENTION: Genes and Uses for Pl.
FILE REFERENCE: 38-21(53629)B
CURRENT EPPLICATION NUMBER: US/11/330,403
CURRENT FILING DATE: 2006-01-12
NUMBER OF SEQ ID NOS: 19250
                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Arabidopsis thalians
                                                                                                                                                                                                                                                                                                                                                                                                             ENGTH: 497
                                                                                                                                                                                                                                                                                                     Local Similarity
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388
                                                                                                                                                                                                                                                                                     53;
                                                                                                                                                                                                                HIRRNIYLVKKKRDNANDGV----GCTNCGPNCDRSCVCRVQCISCSKGCSCPESCGNR-
                                                                                                      PSDVAGWGIFIKDPVQKNEFISEYCGEIISQDEADRR-----GKVYDKYMCSFLFNLNN 671
                                                                                                                                                                           PGCRCKAQCNTKQCPCYLAVRECDPDLCLTCGAADHWDSKNVSCKNCSIQRGSKKHLLLA 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NNDFVVDATRKGNKIRFANHSVNPNCYAKV
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                               DEVVDATRKGNKIRFANHSVNPNC 695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KKLKFCKSHIHDWGLFAMBFIAADEMVIBYVGQNIRQVIADMREKRYEDBGIGSSYMFRV
DETIDATEKGNASRELNHSCNENC
                                                                  KTEHCGWGVEAAESINKEDFIVEYIGEVISDAQCEQRLWDMKHKGMKDFYMC----BIQK 387
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26.0%; Pred. No. 4.8e-06;
tive 25; Mismatches 58
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411
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RESULT 14

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APPLICANT: Abad, Mark S.

TITLE OF INVENTION: Genes and Uses for Plant Improvement
PILE REPERENCE: 38-21(5362)B

CURRENT APPLICATION NUMBER: US/11/330,403

CURRENT FILING DATE: 2006-01-12

NUMBER OF SEQ ID NOS: 19250

SEQ ID NO 2871

LENGTH: 980

TYPE: PRT

ORGANISM: ASPERGILLUS NIDULANS FGSC A4

US-11-330-403-2871
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US-10-539-228-358
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                                                                                                                            PRIOR APPLICATION NUMBER: US 10/322,281
PRIOR FILING DATE: 2002-12-18
NUMBER OF SEQ ID NOS: 866
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 358
LENGTH: 870
                                                                                                                                                                                                                                                                                                                                                          Sequence 358, Application US/10539228 Publication No. US20060154250A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 2871, Application US/11330403 Publication No. US20060159563A1 GENERAL INFORMATION:
Query Match 5.5%; Score 210.5; DB 6; Best Local Similarity 28.5%; Pred. No. 2.7e-05; Matches 65; Conservative 22; Mismatches 78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local (
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APPLICANT: Marc S. Malandro
TITLE OF INVENTION: NOVEL Compositions and Methods in Cancer
FILE REFERENCE: CHIR0052-101 (PP023370.0003)
CURRENT APPLICATION NUMBER: US/10/539,228
CURRENT FILING DATE: 2005-06-17
                                                                                                                LENGTH: 8
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Pred. No. 1.1e-05;
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Search completed: August 11, 2006, 22:50:49 Job time : 25.7682 secs

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Run on:
                                                 August 13, 2006, 13:11:01; Search time 11186.4 Seconds
                                                                                  sic search, using frame plus promodeli
                                                                                                                                                                          Copyright
                                                                                                                                                                          GenCore version 5.1.9 (c) 1993 - 2006 Biocceleration Ltd.
(without alignments)
6396.808 Million cell updates/sec
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Scoring table: Sequence: Title: Perfect score: BLOSUM62 US-10-773-302-2 4051 MGQTGKKSEKGPVCWRKRVK......RYSQADALKYVGIEREMEIP 746

Xgapop 10.0 , Ygapop 10.0 , Fgapop 6.0 , Delop 6.0 , 6366136 seqs, 31973710525 residues Xgapext Ygapext Fgapext Delext 0.5 7.0 7.0

Total number of hits satisfying chosen parameters:

Minimum DB Maximum DB seq length: 0 length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Command line parameters:

-MODEL-frame+ p2n.model -DEV=xlh
-Q-|abss/ABSSWEB spool/US10773302/runat_11082006_140223_16618/app_query.fasta_1
-Q=|abss/ABSSWEB spool/US10773302/runat_11082006_140223_16618/app_query.fasta_1
-DB=GenEmbl -QFMT=fastap -SUFFIX=p2n.rge -MINMATCH=0.1 -LOOPCL=0 -LOOPEXT=0
-UNITS=bits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45
-DOCALIGN=200 -THR SCORE=pct -THR MAX=100 -THR MIN=0 -ALIGN=15 -MODE=LOCAL
-OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=2000000000 -HOST=abss04
-USER=US:10773302 @CCN 1 13924 @runat_11082006 140223 16618 -NCPU=6 -ICPU=3
-NO MAAP -NEG SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG -DEV TIMEOUT=120
-WARN TIMEOUT=30 -THREADS=1 -XGAPDP=10 -XGAPEXT=0.5 -FGAPOP=6 -FGAPEXT=7

Database : GenEmbl: * gb env:
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

321	Result
4051 4051 4051	Score
100.0 2511 100.0 2600 100.0 2600	% Query Score Match Length DB ID
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ผพพ	BB
CQ714720 Sequence A58329 Sequence 1 AR473734 Sequence	Description

Alignment Scores:

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ALIGNMENTS

REFERENCE AUTHORS TITLE RESULT 1
CQ714720
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DEFINITION
ACCESSION SOURCE ORGANISM VERSION KEYWORDS FEATURES JOURNAL Patent: WO 02068579-A 654 06-SEP-2002; PE Corporation (NY) (TTC) Venter, C.J., Adams, M.C., Li, P.W. and Myers, E.W.
Kits, such as nucleic acid arrays, comprising a majority of
humanexons or transcripts, for detecting expression and other uses Sequence 654 from Patent W002068579. CQ714720 CQ714720.1 GI:42275577 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Homo sapiens CQ714720 Homo sapiens (human) lominidae; Homo. /organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606" Location/Qualifiers
1. .2511 2511 bp DNA linear PAT 03-FEB-2004

Pred. No.: 201.00 Langth: 2311 Score: Similarity: 100.00 Matches: 746 Percent Similarity: 100.00 Matches: 746 Percent Similarity: 100.00 Matches: 746 Percent Similarity: 100.00 Matches: 746 Percent Similarity: 100.00 Matches: 746 Percent Similarity: 100.00 Matches: 0 Description: 100.00
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etGlyGlnThrGlyLysL	US-10-773-302-2 (1-746) x A58329 (1-2600)	100.0% Indels: 2 Gaps:	t Similarity: 100.0% Conservative: ocal Similarity: 100.0% Mismatches:	Pred. No.: 0 Length: 2600 Score: 4051.00 Matches: 746		3'UTR 23312600	NIKQEKLIHAVEKUPPUKLIKOANDAWISKAVSKKANSIQKOSKANDUHKESDYAGH GIFIKDPYQKMEFISEYGGEIISQDEADRRGKYYDKYMGSFLFFULMNDFYVDATRKGN KIRFANHSVNPNCYAKYMMVNGDHRIGIFAKKAIQTGEELFFDYRYSQADALKYVGIE REMEIP"	KKDGSSNHVYNYQPCDHPRQPCDSSCPCVI AQNFCEKFCQCSSECQNRPPGCRCKAQC	AAALTABRI KTIPPKR PGGRRACHLPNISSR PGTPT I NYLESKUTUSUREAGTETIGGEN NDKEEEKKDETS SS SEBANSRCQTP I KMKENI LE PENVEMSGAEASMFRVLI IGTYYDN FCAI ARLI IGTKTCROYYEFR VŒSSI I. APAPABUTUTPPRKKKRKIRLMAAHCRKI OL	PSDKI FRA I SSMF PDKGTAEELKBKYKELTEQQL PGAL PPECTPNI DGPNAKSVQREQ SLHSFHTLFCRRCFKYDCFLH PFHAT PNTYKRKNTETALDNKPCGPQCYQHLEGAKEF	avasvetmysmsplqqnfmvedetvlhnipymgdevldqdgteteeliknydgkvhgd recgfindetfvelvnalgqynddddddddddeereekokdledheddkesrpprkf	/translation="MGQTGKKSEKGPVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSS /translation="MGQTGKKSEKGPVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSS NROKTIERTRTINOFWKORRTOPVHILTSVSSLRGTBECSVTSDLDFPTOVTPLKTLN	/protein_id="CAA03482.1" /h	/noden start=1	TR.	u •• m	Ge	COMMENT Other publication DE 19516776 961114. FEATURES Location/Qualifiers	Æ	REPERENCE 1 AUTHORS Jenuwein, T. and Laible, G.	Euarchontoglires; Primates; Cat	SOURCE Homo sapiens (human) ORGANISM Homo sapiens (human) Rukaryota Merazoa Chordata Craniata Vertebrata Euteleostomi:	VERSION A58329.1 GI:3713991 KEYWORDS .	N Sequence 1 from Patent WO9635784.	2 T 2		741 ArgGluMetGluIlePro	Db 2170 GAGCTGTTTTTGATTACAGATACAGCCAGGCTGATGCCCTGAAGTATGTCGGCATCGAA 2229	Qy 721 GluLeuPhePheAspTyrArgTyrSerGlnAlaAspAlaLeuLysTyrValGlyIleGlu 740	Qy 701 MetValAsnGlyAspHisArgIleGlyIlePheAlaLysArgAlaIleGlnThrGlyGlu 720	Db 2050 GGTAACAAAATTCGTTTTGCAAATCATTCGGTAAATCCAAACTGCTATGCAAAAAGTTATG 2109
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361 AssSerSerArgProSerThrProThr1LeAssYalleuGluSerLygAspInraspSer 380		341 GluArglleLysffurProProLysArgProGlyGlyGlyGlyGlyGrgArgLeurroAsn 350	GGACCACAGTGTTACCAGCATTTGGAGGGAGCAAAGGAGTTTGCTGCTGCTCTCACCGCT 1	321 GLYPTOGINCYSTYTGINHIBLEUGIUGLYALBLYSGIUFNEALBALBALBLEUINIALA 3*0		AlaThrProAsnThrTyrLysArgLysAsnThrGluThrAlaLeuAspAsnLysBroCys 3			201 INTERCABILITEM STATE AND ALTER AND ACCCCCAACATAGATCCAAAATGCTAAAATCTTGTTCAGAGAGAG	AAGGAAAAATATAAAGAACTCACCGAAGCAGCAGCTCCCAGGCGCACTTCCTCCTCAGAAGA	LysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuProProGluCys 2	750 GATAAAATTTTTGAAGCCATTTCCTCAATGTTTCCAGATAAGGGCACAGCAGAAGAACTA 809	221 AspLysIlePheGluAlaIleSerSerMetPheProAspLysGlyThrAlaGluGluLeu 240	690 AAAGATCTYGAAGGATCACCGAGATGATAAAGAAAAGCCGCCCCACCTCGGAAATTTCCTTCT 749	201 LysAspLeuGluAspHisArgAspAspLysGluSerArgProProArgLysPheProSer 220	630 TATNATGATGATGATGATGATGATGATGATGCTGAAGAAAAAAAA	181 TyrasnaspaspaspaspaspaspaspGlyaspaspFroGluGluArgGluGluLysGln 200	AGAGAATGTGGGTTTATAAATGATGAAATTTTTGTGGAGTTGGTGAATGCCCTTGGTCAA	ArrCliiCveClvDhoTleAsnAsnCliiTleDheValCliiLeiiValAsnAlaLeiiGlvGln	141 GlnaspolythebheileoluGluLeuILeLysAsniyraspolytysValhisGlyasp 160 	ATGGTGGAAGATGAAACTGTTTTACATAACATTCCTTATATGGGAGATGAAGTTTTAGAT	121 MetValGluAspGluThrValLeuHisAsnIleProTyrMetGlyAspGluValLeuAsp 140	TITLE TO THE TOTAL CONTROL TO	LeuAsnAlaValAlaSerValProIleMetTvrSerTrpSerProLeuGlnGlnAsnPhe	81 Arggiucysservalintseraspienaspinerrolinalitaerroleemysint iov 	AMAICAGCGMMGMAIACAGCCIGIGCACAICEIGEACIICIGEAGAGCICAIA GCGCGGGGACI	61 LysGlnArgArgIleGlnProValHisIleLeuThrSerValSerSerLeuArgGlyThr 80	210 ATGITTAGITCCAATCGTCAGAAAATTTTTGGAAAGAACGGAAATCTTAAACCAAGAATGG 269	41 MetPheSerSerAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnGluTrp 60	21 SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArgAlaAspGluValLysSer 40 	

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                                                                                        GlyAsnLysIleArgPheAlaAsnHisSerValAsnProAsnCysTyrAlaLysValMet
                                                                                                                               TyrMetCysSerPheLeuPheAsnLeuAsnAsnAspPheValValAspAlaThrArgLys
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Jenuwein,T., Laible,G., O'Carroll,D
Chromatin regulator genes
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Bochringer Ingelheim International
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                               CHACCCTGTGATCATCCACGGCAGCCTTGTGACAGTTCGTGCCCCTTGTGTGATAGCACAA
                                               GlnProCysAspHisProArgGlnProCysAspSerSerCysProCysValIleAlaGln
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Horrigan, S., Soppet, D.R. and Weaver, Z.
Cancer gene determination and therapeutic
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Sequence 4184 from Patent
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1 (bases 1 to 2600)

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1 Laible, G., Wolf, A., Dorn, R., Reuter, G., Nislow, C., Lebersorger, A., Popkin, D., Pillus, L. and Jenuwein, T.

Mammalian homologues of the Polycomb-group gene Enhancer of zeste mediate gene silencing in Drosophila heterochromatin and at S. cerevisiae telomeres
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                                                                        /codon_start=1
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NDKEBEEKKDETSSSSEANSRCQTFIKMKPNIEDVDTPPKKKGKKHLLARAHCKRIQL
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GIFIKDFVQKNEFISEYCGEIISQDEADRRGKKYDLKTMCSFLFFUNNDFVVDATTEKGN
KIRPANHSVNPNCYAKVMMVNGDHRIGIFAKRAIQTGEELFFDYRYSQADALKXVGIE
KCHTANHSVNPNCYAKVMMVNGDHRIGIFAKRAIQTGEELFFDYRYSQADALKXVGIE
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                                                                                                                                                                                                                                                                                                                                                      /gene="EZH2"
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90. .2330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /mol_type="mRNA"
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/cell_type="B-cell"
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 GlyProGlnCysTyrGlnHisLeuGluGlyAlaLysGluPheAlaAlaAlaLeuThrAla
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                                                  AlaThrProAsnThrTyrLysArgLysAsnThrGluThrAlaLeuAspAsnLysProCys
                                                                                                 TTTCATACGCTTTTCTGTAGGCGATGTTTTAAATATGACTGCTTCCTACATCCTTTTCAT
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R. Site2: DraIII (CACCATGIG)

R. Site2: DraIII (CACCATGIG)

Rescription: 1st strand cDNA was primed with an oligo(dT) primer [ATGIGGCTTTTTTTTTTTTTTT]; double-stranded cDNA was synthesized using specific 5' and 3' primers and amplified by PCR. The PCR product was digested with SfiI and size selection was performed to exclude fragments <1.5kb.The SfiI-digested PCR product was cloned into distinct DraIII sites of pMEI85-FL3. XhoI sites just outside the DraIII sites can be used to isolate the cDNA insert. Libraries

National Institute of Genetics of Japan, Mish distribution: clone distribution information http://www.nih.go.jp/yoken/genebank/ Lab host: TOP10

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found at:

Biology,

Vector:

Sitel:

PME18S-FL3 (Acc.No. AB009864)
DraIII (CACTGTGTG)

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                                      Submitted (10-MAY-2004) Katsuyuki Hashimoto, National Institute of Infectious Diseases, Division of Genetic Resources; 23-1, Toyama 1-chome, Shinjuku-ku, Tokyo, 162-8640, Japan (B-mallikhashi@nih.go.jp, URLihttp://www.nih.go.jp/yoken/genebank/, Tel:81-3-5285-1111(ex.2120), Fax:81-3-5285-1181)

The International consortium for macaque cDNA sequencing and analysis consists of Department of Virology and Human Genome Center, Institute of Medical Science, The University of Tokyo, Japan; Division of Genetic Resources, National Health Research Institute, Taipei, Taiwan; Institute of Molecular Biology, Academia Sinica, Taipei, Taiwan; Department of Ecology & Evolution,
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15944441
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2619 bp mRNA linear PRI 17-SEP-2005
Macaca fascicularis testis cDNA clone: QtsA-18821, similar to human
enhancer of zeste homolog 2 (Drosophila) (EZH2),transcript variant
c,mRAN, RefSeq: NM_152998.1.
                                                                                                                                                                                                                                                                                                                                              3 (bases 1 to 26:
Hashimoto, K., Kusu
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                             International consortium for macaque cDNA sequencing and analysis DNA sequences of macaque genes expressed in brain or testis and its evolutionary implications
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Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
Cercopithecidae; Cercopithecinae; Macaca.
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Macaca fascicularis (crab-eating macaque)
University of Chicago, Chicago,
                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished
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  Center
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                                                                                                                                                                                                                                        MetGlyGlnThrGlyLysLysSerGluLysGlyProValCysTrpArgLysArgValLys
                                                                                                                        MetPheSerSerAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnGluTrp
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ArgGluCysSerValThrSerAspLeuAspPheProThrGlnValIleProLeuLysThr
                                              Ly8GlnArgArgIleGlnProValHisIleLeuThrSerValSerSerLeuArgGlyThr
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NRQKILERTEXIONSWGYTGKKSEKGPVCWRKRVKSEYMELRQLKRFRADEVKSMFSS NRQKILERTEXIONSWGYTGKILERTEXIONSWGYTGKYHGD RECGPINDSIFVELIVALGQYNDDDDDDGDDEEREEKOKDLEDHRDDKESRPPRKF PSDKIFEAISSMFPDKGTAEELKEKYKELTEQQLPGALFPECTFNIDGPNAKSVQREQ SLHSFHILFCRRCFKYDCFLHPFHATFNAYKRKNTETALDKFCGSPCVQHLEGAKEF AAALTAERIKTPKFPGGRRRGRLPNNSSRFSTTPTINVLESKDTDSDREAGTETGGEN NDKEEBEKKOETSSSEANSRCQTFIKKNNIEPENVEWSGAEASMFWULGTYYDN FCAIARLIGTKTCRQVYEFRVKESSIIAPAPAEDVDTFPRKKKRKHRLMAAHCRKIQL KKDGSSNHVYNYXQFCHBFRQPCDSSCFCVIAQNFCEKFCQCSSECQNRFPGCRCKAQC NTKQCFCYLAVRECDEDDLCLTGGAADHRDSKNVSKNCSIQRGSKKHRLMAAHCRKIQL KKDGSSNHVYNYXQFCHBFRQFCDSSCFCVIAQNFCEKFCQCSSECQNRFPGCRCKAQC NTKQCFCYLAVRECDEDDLCLTGGAADHRDSKNVSKNCSIQRGSKKHRLMAAHCRKIQL KKTGGSNHVYNYXQFCHBFRQFCDSSCFCVIAQNFCEKFCQCSSECQNRFPGCRCKAQC NTKQCFCYLAVRECDEDDLCTGGAADHRDSKNVSKNCSIQRGSKKHLLLARSDVAGW GIFIKDPVQKMEFISEVGGBIIGQDEADRRGKVYDKYMCSFLFNLANDFVVDATRKGN KKTRFANHSVNPNCYAKVMMVNGDHRIGIFAKRAIQTGEELFFDYRYSQADALKYVGIE KKTRFANHSVNPNCYAKVMMVNGDHRIGIFAKRAIQTGEELFFDYRYSQADALKYVGIE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="unnamed protein product; Homo sapiens enhancer of zeste homolog 2 (Drosophila) (EZH2), transcript variant 2, mRNA, RefSeq: NM_152998.1"
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/codon_start=1
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/dev_stage="adult"
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/db_xref="taxon:9541"
/clone="QtsA-18821"
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/db_xref="GI:67972188"
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/mol_type="mRNA"
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OMDA: parietal lobe
OtrA: temporal lobe right
OflA: frontal lobe left
OMDA: medulla oblongata
ODDA: brain stem
ODTA: occipital lobe right
OtbA: testis
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STAT6 activating gene.
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WO 02099943-A/116.
Homo sapiens (human)
              Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
Hominidae; Homo.
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RS Honda,G., Matsuda,A., Muramatsu,S. and Ishizawa,K.

STAT6 activating gene

Patent: WO 02096943-A 116 05-DEC-2002;

ASAHI KASEI CORP,GOICHI HONDA,AKIO MATSUDA,SHUJI MURAMATSU, KENYA

ISHIZAWA

OS Homo sapiens (human)

PN WO 02096943-A/116

PD 05-DEC-2002

PF 25-MAY-2002 WO 2002JP004949

PF 25-MAY-2001 JP 01P 157043,30-AUG-2001 JP 01P 260681 PR 4

10-OCT-2001 JP 01P 313175

PI 05CTHI HONDA, KKIO WATSUDA,SHUJI MURAMATSU,KENYA ISHIZAWA PC

COTK14/47,C07K17/00,C12N15/12,C12N5/10,C12P21/02,C12P21/08, PC

C1201/02,

PC A61P3/06,A61P3/10,A61P29/00,A61P31/00,A61P37/00, PC

G01N33/15,
G01N33/50,G01N33/53,G01N33/566,G06F17/30,G06F17/60 CC STAT6

activating gene

Location/Qualifiers

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/mol_type="genomic DNA"
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0	501 AlaHisCysArgLysIleGlnLeuLysLysAspGlySerSerAsnHisValTyrAsnTyr 520
75	481 ProAlaGluAspValAspThrProProArgLysLysLysLysLysHisArgLeuTrpAla 500
,	461 LysThrCysArgGlnValTyrGluPheArgValLysGluSerSerIleIleAlaProAla 480
	441 ArgValleuIleGlyThrTyrTyrAspAsnPheCysAlaIleAlaArgLeuIleGlyThr 460
	421 LysProAsnIleGluProProGluAsnValGluTrpSerGlyAlaGluAlaSerMetPhe 440
P U L P 2	401 LybaspGluThrSerSerSerSerGluAlaAsnSerArgCysGlnThrProIleLysMet 420
. <u></u> .	381 AspargGlualaGlyThrGluThrGlyGlyGluAsnAsnAspLysGluGluGluGluLys 400
א ש כ	361 ABnSerSerArgProSerThrProThrlleAsnValLeuGluSerLysAspThrAspSer 380
, e v	341 GluargileLysThrProProLysArgProGlyGlyArgArgArgArgLeuProAsn 360
	321 GlyProGlnCysTyrGlnHisLeuGluGlyAlaLysGluPheAlaAlaAlaLeuThrAla 340
	301 AlaThrProAsnThrTyrLysArgLysAsnThrGluThrAlaLeuAspAsnLysProCys 320
	281 PheHisThrLeuPheCysArgArgCysPheLysTyrAspCysPheLeuHisProPheHis 300
) <u>u</u> (261 ThrProAsnIleAspGlyProAsnAlaLysSerValGlnArgGluGlnSerLeuHisSer 280
	241 LysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuProProGluCys 260
ט ט ט	221 ASPLYSIlePheGluAlaIleSerSerMetPheProAspLySGlyThrAlaGluGluLeu 240
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CACAGTGTTACCAGCATTTGGAGGGAGCAAA	958 GCAACACCCAACACTTATAAGCGGAAGAACACAGAAACAGCTCTAGACAACAACAACCACTTGT 1017 321 GlyProGlnCysTyrGlnHisLeuGluGlyAlaLysGluPheAlaAlaAlaLeuThrAla 340 	AlaThrProAsnThrTyrLysArgLysAsnThrGluThrAlaLeuAspAsnLysProCys 3	281 PheHisThrLeuPheCysArgArgCysPheLysTyrAspCysPheLeuHisProPheHis 300	261 ThrProAsnIleAspGlyProAsnAlaLysSerValGlnArgGluGlnSerLeuHisSer 280 	241 LysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuProProGluCys 260 	221 AspLy8IlePheGluAlaIleSexSexMetPheProAspLy8GlyThrAlaGluGluLeu 240 	201 LysaspleuGluaspHisargaspAspLysGluSerArgProProArgLysPheProSer 220 	181 Tyrasnaspaspaspaspaspaspaspaspaspaspaspaspaspa	161 ArgGluCyeGlyPheileAsnAspGluIlePheValGluLeuValAsnAlaLeuGlyGln 180 	141 GlnäspGlyThrPheIleGluGuLeuIleLysAsnTyrAspGlyLysValHisGlyAsp 160 	121 MetValGluAspGluThrValLeuHisAsnIleProTyrMetGlyAspGluValLeuAsp 140 	101 LeuAsnAlaValAlaSerValProIleMetTyrSerTrpSerProLeuGlnGlnAsnPhe 120 	ArgGluCysSerValThrSerAspLeuAspPheProThrGlnValIleProLeuLysThr 	61 LygGlnArgArgIleGlnProValHigIleLeuThrSerValSerSerLeuArgGlyThr 80	41 MetPheSerSerAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnGluTrp 60 	21 SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgAlaAspGluValLysSer 40 	1 MetGlyGlnThrGlyLysLysSer 58 ATGGGCCAGACTGGGAAGAAATCT	Match: 99.7% Indels: 0 2 Gaps: 0 773-302-2 (1-746) x AX821950 (1-2576)
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Submitted (13-FRB-1996) S.B. Antonarakis, Division of Medical Genetics, University of Geneva School of Medicine, Rue Michel-Servet 1, CH-1211 Geneva, SWITZERLAND Related protein P42124.
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X95653.1 GI:1438063
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Antonarakis, S.E.
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1 (bases 1 to 2576)
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                                                                                                                     RECGFINDEIFVELVNALGQYNDDDDDDDDDDDDDEDEEREKÖKDLEDHRDDKSSR PPRKF
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AVASVPTMYSWSPLANDETVHILTS
                                                                                                          KIRFANHSVNPNCYAKVMMVNGDHRIGIFAKRAIQTGEELFVDYRYSQADALKYVGIB
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/chromosome="21"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'gene="EZH2"
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AlaThrProAsnThrTyrLysArgLysAsnThrGluThrAlaLeuAspAsnLysProCys
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                      TyrMetCysSerPheLeuPheAsnLeuAsnAsnAspPheValValAspAlaThrArgLys
                                                                                                                                                                          ValAlaGlyTrpGlyIlePheIleLysAspProValGlnLysAsnGluPheIleSerGlu
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TITLE
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Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,
Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,
Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,
Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,
Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,
Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,
Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,
Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J.,
McKernan, K.J., Malek, J.A., Gumaratne, P.H., Richards, S.,
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,
Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,
Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,
Villalon, D.K., Muzny, D.M., Madan, A., Rodrigues, S.,
Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.,
Bouffard, G.G., Blakeley, R.W., Touchman, J.W., Green, E.D.,
Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M.,
Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E.,
Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A.
Mammalian Gene Collection Program Team
Generation and initial analysis of more than 15,000 full-length
human and mouse cDNA sequences
D. Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
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                                                                                                                                                                                                                                          Submitted (12-JUL-2001) National Institutes of Health, gene Collection (MGC), Bethesda, MD 20892-590, USA NIH-MGC Project URL: http://mgc.nci.nih.gov On Aug 25, 2003 this sequence version replaced gi:14790 Contact: MGC help desk.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
CDNA Library Preparation: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Preparation: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Sequencing Group at the Stanford Human
Center, Stanford University School of Medicine, Stanford,
Center, Stanford University School of Medicine, Stanford,
Web site: http://www-shgc.stanford.edu
Contact: (Dickson, Mark) mcd@paxil.stanford.edu
Dickson, M., Schmutz, J., Grimwood, J., Rodriquez, A., and
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Mammalia; Eutheria;
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enhancer of zeste homolog 2 (Drosophila), transcript
RNA (cDNA clone MGC:9169 IMAGE:3901250), complete cds
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                                                                                                                                           MetPheSerSerAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnGluTrp
                                                                                                                                                                                                             SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArgAlaAspGluValLysSer
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                  ArgGluCysSerValThrSerAspLeuAspPheProThrGlnValIleProLeuLysThr 100
                                                                                LysGlnArgArgIleGlnProValHisIleLeuThrSerValSerSerLeuArgGlyThr
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TRKGNKIRFANHSVNPNCYAKVMYNNGDHRIGIFAKRAIQTGEELFPDYRYSQADALK
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/note="eynonyms: ENX-1, E
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1237. 2378
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/tissue_type="Pancreas, epithelioid
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JP 200551852-A/95.
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
Hominidae; Homo.
1 (bases 1 to 2512)
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Expression Profile of Prostate Cancer

L Patent: JP 2005518522-A 95 23-JUN-2005;

THE REGENTS OP THE UNIVERSITY OF MICHIGAN

OS Homo sapiens
PN JP 2005518522-A/95
PD 23-JUN-2005
PP 02-AUG-2002 JP 2003517245
PF 02-AUG-2001 US 60/309581,15-NOV-2001 US 60/33

PR 02-AUG-2001 US 60/309581,15-NOV-2001 US 60/33

O1-AUG-2002 US 10/210120
PI mark a rabin,aruru m chinnaiyan,arun surikumaru CC
FH Key
Location/Qualifiers.
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JOURNAL
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AUTHORS
                                                                                                                                                                             Strausberg, R.L., Feingold, B.A., Grouse, L.H., Derge, J.G.,
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McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,
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Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S.,
Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.,
Butferfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.B.,
Schnerch, A., Schein, J.B., Jones, S.J. and Marra, M.A.
                                                                                          Generation and initial analysis of more than 15,000 human and mouse cDNA sequences Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; But
Mammalia; Butheria; Buarchontoglires; Glires; Rodentia;
Sciurognathi; Muroidea; Muridae; Murinae; Mus.
1 (bases 1 to 2574)
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This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 6679
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R. M.
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WISA

Ontact: MGC help desk

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Gilbert Smith, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Direct Submission
Submitted (28-FBB-2001) National Institutes of Health, Mammalian Submitted (Ref.), Cancer Genemics Office, National Cancer Gene Collection (MGC), Cancer Genemics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A Library Preparation: Life Technologies, Inc.
A Library Arrayed by: The I.M.A.G.E. Consortium (LINL)
A Library Arrayed by: The I.M.A.G.E. Consortium (LINL)
A Library Arrayed by: The I.M.A.G.E. Consortium (LINL)
Sequencing by: Sequencing Group at the Stanford Human
ter, Stanford University School of Medicine, Stanford,
site: http://www-shgc.stanford.edu
tact: (Dickson, Mark) mcd@paxil.stanford.edu
kson, M., Schmutz, J., Grimwood, J., Rodriquez, A., and
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/lab_host="DH10B"
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Klausner, R.D., Colline, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,

Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,

Hopkine, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,

Diatchenko, L., Marusina, K., Fermer, A.A., Rubin, G.M., Hong, L.,

Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,

Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,

Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,

Abramson, R.D., Millahy, S.J., Boosak, S.A., McEwan, P.J.,

McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,

Worley, K.C., Hale, S., Garcis, A.M., Gay, L.J., Hulyk, S.W.,

Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,

Yahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S.,

Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.,

Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D.,

Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M.,

Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A.

Generation and initial analysis of more than 15,000 full-length

human and mouse cDNA sequences

Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
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Clone distribution: MGC clone distribution information can be fow through the I.M.A.G.B. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 10 Row: 1 COlumn: 8
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 6679720
This clone grew slowly and was rescued by PCR.
Location/Qualifiers
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Submitted (31-OCT-2001) National Institutes of Health, Mammalian Submitted (31-OCT-2001) National Institutes Office, National Cancer Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                               Center code: BCM-HGSC
Web site: http://www.hgsc.bcm.tmc.edu/cdna/
Contact: amg@bcm.tmc.edu
Gunaratne, P.H., Garcia, A.M., Lu, X., Hulyk, (
Kowis, C.R., Sneed, A.J., Martin, R.G., Muzny,
A.N., Gibbs, R.A.
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BC016391 BC016391.1 GI:16741076
MGC.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              Email: cgapbs-remail.nih.gov
Tissue Procurement: Gilbert Smith, Ph.D.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.B. Consortium (LLNL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NIH-MGC Project URL: h
Contact: MGC help desk
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Mammalia; Eutheria; Euarchontoglires; Glires; Rodent
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/db_xref="GeneID:14056"
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67._.2307
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/clone="MGC:5970 IMAGE:3586689"
/tissue_type="Mammary tumor metastatized to lung. To arose spontaneously from a senescent normal mammary (clonal) outgrowth infected with the virus MMTV."
/clone lib="NCI CGAP_Lu29"
/lab_host="DH10B"
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M Mus musculus
M Riberrar
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Okazaki,N., Kikumo,R.F., Ohara,R., Inamoto,S., Koseki,H., Hiraoka,S., Saga,Y., Nagase,T., Ohara,O. and Koga,H. Prediction of the Coding Sequences of Mouse Homologues of KIAA
                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eut
Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia;
Sciurognathi; Muroidea; Muridae; Murinae; Mus.
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               AAGCAGCGGAGGATACAGCCTGTGCACATCATGACTTCTGTGAGCTCATTGCGCGGGACT
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Submitted (22-FEB-2005) Hisashi Koga, Kazusa DNA Research Institute, Laboratory for Genome Informatics; 2-6-7 Kazusa-kamatari, Kisarazu, Chiba, 292-0818, Japan (B-mail:mouse@kazusa.or.jp, Tel:81-438-52-3919, Fax:81-438-52-3918) Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gene. The Complete Nucleotide Sequences of Mouse KIAA-homologous CDNAs Identified by Screening of Terminal sequences of cDNA Clone Randomly Sampled from Size-Fractionated Libraries. Published only in Database (2005)

2 (bases 1 to 2600)

Okazaki,N., F.Kikuno,R., Nagase,T., Ohara,O. and Koga,H.
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/inference="non-experimental evidence, no additional
details recorded"
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is not identified."
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LysGlnArgArgIleGlnProValHisIleLeuThrSerValSerSerLeuArgGlyThr 80
                                                                                                                                            SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgAlgAlaAspGluValLysSer
                                                                                                                                                                                                                       MetGlyGlnThrGlyLysLysSerGluLysGlyProValCysTrpArgLysArgValLys
                                                   ATGTTTAGTTCCAATCGTCAGAAAATTTTGGAAAGAACTGAAACCTTAAACCAAGAGTGG
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                                                                                                                           TCAGAGTACATGAGACTGAGACAGCTCAAGAGGTTCAGAAGAGCTGATGAAGTAAAGACT
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Massachusetts General Hospital, Wellman 8, Boston, MA 0:
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hobert, O., Sures, I., Ciossek, T., Fuchs, M. and Ullrich, A. Isolation and developmental expression analysis of Enx-1, a novel mouse Polycomb group gene mouse Polycomb (1), 171-184 (1996)
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                                                                                                                                                                                           SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArgAlaAspGluValLysSer
                                                                                                                                                                                                                                                            MetGlyGlnThrGlyLysSerGluLysGlyProValCysTrpArgLysArgValLys
                                                                                                                              MetPheSerSerAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnGluTrp
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                                                                                                         ATGTTTAGTTCCAATCGTCAGAAAATTTTGGAAAGAACTGAAACCTTAAACCAAGAGTGG
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Search completed: August 13, 2006, 19:50:38 Job time : 11250.4 secs

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-MODEL-frame+ p2n.model -DEV=xlh
-Q-|abss/ABSSWEB gpool/US10773302/runat_11082006_140221_16607/app_query.fasta_1-Q-|abss/ABSSWEB_gpool/US10773302/runat_11082006_140221_16607/app_query.fasta_1-DB=N_Geneseq -QFWT=fastap -SUFFIX=p2n.rng -MANMATCH=0.1 -LOOPCL=0 -LOOPEXT=0
-UNITS=bits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45
-DOCALIGN=200 -THR_SCORE=pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15 -MODE-LOCAL
-OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=20000000000 -HOST=abs804
-USER=US10773302 @CGN 1 1 1518 @runat 11082006 140221 16607 -NCPU=6 -ICPU=3
-NO_MMAP -NEG_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG -DEV_TIMEOUT=120
-WARN_IMEDOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6 -FGAPEXT=7
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				; gene therapy;						Abzb8392 Nucreocid Aaz23137 Arabidops	Aaf90504 Arabidops	Adx61599 Plant ful	Fertilisa	Aak98823 cDNA of M	Adt16470 Plant cDN	Polynu	Adx30124 Plant ful	S. mar Plant	Aak81124 Human imm	Adno7804 Human mam	Adq49105 Novel can Abl93013 Rat metas	Abl11221 Drosophil Abl11220 Drosophil	Abx17535 Human cDN	Adx05847 Cyclin-de	Adz61878 Murine Ez	Add10763 Human STA	Human	Human	Adr25182 Breast ca Ady61813 Human gen	Cance	Abx76182 Lung canc	Human	Adt90198 Human gen	Human Human

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Alignment Scores:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New DNA encoding chromatin regulator protein with SET domain related vectors, transformed cells, proteins and antibodies, diagnosis and treatment of cancer.
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22-SEP-2000;
25-SEP-2000;
25-SEP-2000;
25-SEP-2000;
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PE, DR, Augustus Weaver Z N ξ. Carter č, Ebner R, Endress စ Horrigan

2002-188264/24.

agent in exp Screening ent to be tested expression of a for anti-neoplastic agent involves exposing cells to a chemical be tested for anti-neoplastic activity, and determining a change sion of a gene of a signature gene set.

Claim 1; SEQ ID NO 4184; 44pp; English.

The present invention describes a method (M1) for screening for an antiCC neoplastic agent. The method involves exposing cells to a chemical agent
CC to be tested for anti-neoplastic activity, determining a change in
CC expression of at least one gene (I) of a signature gene set, where (I)
CC comprises a sequence (S) selected from 8447 sequences (given in ABL61664
CC to ABL70110), or is at least 95% identical to (S), where a change in
CC expression is indicative of anti-neoplastic activity. (I) has cytostatic
CC activity and can be used in gene therapy. M1 can be used for screening an
CC anti-neoplastic agent, and can be used for producing a product which is
CC the data collected with respect to the anti-neoplastic agent as a result
CC of M1, and the data is sufficient to convey the chemical structure and/or
CC properties of the agent. M1 can be used in the treatment of cancer such
CC as colon, breast, stomach, lung, thyroid, oesophageal, ovarian, kidney,
CC prostate or pancreatic cancer, adenocarcinoma, carcinoma, clear cell
CC cancer, infiltrating ductal cancer, infiltrating lobular cancer, squamous
CC et all carcinoma, neuroendocrine carcinoma, papillary carcinoma and Wilm's

Sequence 2600 ₽, 818 ð 525 ü 630 ē 627 ; 0 U; 0 Other;

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                                                                                                                  Alignment :
Pred. No.:
                                                                                                                                                                                                                               agent; treating cancer; monitoring the progress of cancer therapy in a patient; determining the likelihood of success of cancer therapy in a patient; producing test data with respect to the anti-neoplastic activity of a compound; and determining the progress of a treatment for cancer in a patient following commencement of a cancer treatment on the patient. The methods and compositions of the invention have cyrostatic activity and may be used in gene therapy. The method is useful in diagnosing or treating cancer in a mammal. This polynucleotide sequence represents a gene over-expressed in a cancerous cell, used in the novel cancer
                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to a novel method for diagnosing cancer in a mammal. The method comprises determining amplification of specific genes, given in the specification, in the genome of a mammal. The invention further comprises methods for: diagnosing cancer or a pre-cancerous condition in a mammal; inhibiting cancer or a pre-cancerous condition in a mammal; identifying an agent having therapeutic activity in a human patient; identifying an anti-neoplastic agent; determining the cancerous status of a cell; identifying a compound as an anti-neoplastic
                                                                                                                                                                                                             gene over-expressed in a cancerous diagnosis method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Diagnosing cancer in a mammal comprises determining amplification specific genes, e.g., serine/threonine kinase 6, in the genome of
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ArgValLeuileGlyThrTyrTyrAspAsnPheCysAlaileAlaArgLeuileGlyThr 460
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                                                                  MetValAsnGlyAspHisArgIleGlyIlePheAlaLysArgAlaIleGlnThrGlyGlu
                                                                                                                                                GlyAsnLysIleArgPheAlaAsnHisSerValAsnProAsnCysTyrAlaLysValMet 700
                                                                                                                                                                                                                                                                                                                TyrCysGlyGluIleIleSerGlnAspGluAlaAspArgArgGlyLysValTyrAspLys
                                                                                                                                                                                                                                                                                                                                                                                                    ValAlaGlyTrpGlyIlePheIleLysAspProValGlnLysAsnGluPheIleSerGlu
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAspSerLysAsnValSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAACCCTGTGATCATCCACGGCAGCCTTGTGACAGTTCGTGCCCTTGTGTGATAGCACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCACACTGCAGAAAGATACAGCTGAAAAAAGGACGGCTCCTCTAACCATGTTTACAACTAT 1649
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GluLeuPhePheAspTyrArgTyrSerGlnAlaAspAlaLeuLysTyrValGlyIleGlu
                                                                                                                           GGTAACAAAATTCGTTTTGCAAATCATTCGGTAAATCCAAACTGCTATGCAAAAGTTATG
                                                                                                                                                                                                            TACATGTGCAGCTTTCTGTTCAACTTGAACAATGATTTTTGTGGTGGATGCAACCCGCAAG
                                                                                                                                                                                                                                 TyrMetCysSerPheLeuPheAsnLeuAsnAsnAspPheValValAspAlaThrArgLys
                                                                                                                                                                                                                                                                                           TACTGTGGAGAGATTATTTCTCAAGATGAAGCTGACAGAAGAGGGAAAGTGTATGATAAA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Diagnosing cancer in a mammal comprises determining amplification specific genes, e.g., serine/threonine kinase 6, in the genome of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Strovel
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human gene over-expressed in a cancerous cell, SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13-JAN-2005
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Claim 3; SEQ ID NO 88; 92pp; English

condition in a mammal; inhibiting cancer or a pre-cancerous condition in a characteristic activity in a characteristic activity in a characteristic activity in a characteristic activity in a characteristic activity in a characteristic activity in a characteristic activity in a cancerous status of a cell; identifying a compound as an anti-neoplastic agent; treating cancer; monitoring the progress of cancer therapy in a patient; determining the likelihood of success of cancer therapy in a patient; producing test data with respect to the anti-neoplastic activity of a compound; and determining the progress of a treatment for cancer in a patient following commencement of a cancer treatment on the patient. The methods and compositions of the invention have cytostatic activity cand may be used in gene therapy. The method is useful in diagnosing or treating cancer in a mammal. This polymucleotide sequence represents a concerous cell, used in the novel cancer concerts a matching cancer in a cancerous cell, used in the novel cancer concerts. The invention relates to a novel method for diagnosing cancer in a mammal. The method comprises determining amplification of specific grant in the specification, in the genome of a mammal. The invention further comprises methods for: diagnosing cancer or a pre-cancerous genes

Sequence 2600 BP; 818 P 525 Ç 630 G; 627 Ţ, 0 U; 0 Other;

DB:	Query Match:	Best Local Similarity:	Percent Similarity:	Score:	Pred. No.:	Alignment Scores:
13	100.0%	100.0%	100.0%	4051.00	7.79e-302	
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US-10-773-302-2 (1-746) x ADT89975 (1-2600)

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                                                                  Percent Similarity:
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Query Match:
                          US-10-773-302-2 (1-746)
                                                                                                                                                                                     condition in a mammal; inhibiting cancer or a pre-cancerous condition in a mammal; inhibiting cancer or a pre-cancerous condition in a mammalian cell; identifying an agent having therapeutic activity in a human patient; identifying an anti-neoplastic agent; determining the cancerous status of a cell; identifying a compound as an anti-neoplastic agent; treating cancer; monitoring the progress of cancer therapy in a patient; producing the test data with respect to the anti-neoplastic activity of a compound; and determining the progress of cancer therapy in a patient; producing commencement of a cancer treatment for cancer in a patient following commencement of a cancer treatment on the patient. The methods and compositions of the invention have cytostatic activity and may be used in gene therapy. The method is useful in diagnosing or treating cancer in a mammal. This polynucleotide sequence represents a gene over-expressed in a cancerous cell, used in the novel cancer
                                                                                                                                                                                                                                                                                                                                                                               The invention relates to a novel method for diagnosing cancer in a mammal. The method comprises determining amplification of specific genes, given in the specification, in the genome of a mammal. The invention further comprises methods for: diagnosing cancer or a pre-cancerous
                                                                                                                                                               Sequence 2600
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specific go
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2004-784489/77.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO2004091548-A2
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                                                                                                                                                                                  Alignment
                                                                                                                                                                                                                                                                                                  The invention relates to a novel method for diagnosing cancer in a commandant. The method comprises determining amplification of specific genes, companies and the specific genes of the specific genes of the specific genes of the specific genes of the specific genes of the specific genes of the specific genes of the specific genes of the specific genes of the specific genes of the specific genes of the specific genes of the specific genes of condition in a mammal; inhibiting cancer or a pre-cancerous condition in commendation of the specific genes of cancerous condition in a mammal patient; identifying an agent having therapeutic activity in a compound patient; denerifying an anti-neoplastic gene; determining the call; identifying a compound as an anti-neoplastic compatient; determining the likelihood of success of cancer therapy in a compound; and determining the progress of cancer therapy in a compound; and determining the progress of a treatment for cancer in a patient following commencement of a cancer treatment on the patient. CC of a compound; and determining the progress of a treatment for cancer in a patient following commencement of a cancer treatment on the patient. CC and may be used in gene therapy. The method is useful in diagnosing or treating cancer in a mammal. This polynucleotide sequence represents a CC diagnosis method of the invention.
                                                                                                                                                  No.:
                                                                                                                                                                                                                                               Sequence 2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Diagnosing cancer in a mammal comprises determining amplification specific genes, e.g., serine/threonine kinase 6, in the genome of
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cytostatic; gene therapy; gene; ds.
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	}	AlaThrProAgnThrTyrLygArgLygAgnThrGluThrAlaLeuAgpAgnLygProCyg 3
TyrcysGlyGluIleIleSerGlnAspGluAlaAspArgGAgGlyLysValTyrAspLys	B 8	81 PheHisThrLeuPheCysArgArgCysPheLysTyrAspCysPheLeuHisProPheHis 30
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AAGCCAAATATTGAACCTCCTGAGAATGTGGAGTGGAGT	g dg	61 LygGlnArgArgIleGlnProValHisIleLeuThrSerValSerSerLeuArgGlyThr 80
Type	?	41 MetPheSerSerAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnGluTrp 60
	B 4	21 SerGluTyrMetArgLeuArgGlnLeuLygArgPheArgArgAlaAspGluValLysSer 40
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                                                                                                                                                                                                                                                The invention relates to a novel method for detecting soft tissue sarcoma which comprises obtaining a first soft tissue sample from an individual and a normal soft tissue sample from the same or different individual, determining the expression of a gene in both samples and comparing the expression of the gene in both soft tissue samples and comparing the expression in the first soft tissue sample indicates the presence of soft tissue sarcoma. The method of the invention has cytostatic applications and may be useful for detecting soft tissue sarcoma, possibly via gene therapy or vaccine production. The nucleic acid sequences may be useful in diagnostic and screening applications. The current sequence is that of a human soft tissue sarcoma-upregulated DNA of the invention. The current sequence is not shown within the specification per se but was submitted in CD format by the inventor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Early detection of soft tissue sarcoma comprises determining expression of a gene in a first soft tissue sample and a normal soft tissue sample and comparing the gene expression, also useful in treating soft tissue
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           GATAGGGAAGCAGGGACTGAAACGGGGGGAGAGAACAATGATAAAGAAGAAGAAGAAGAAGAAG
                           AspArgGluAlaGlyThrGluThrGlyGlyGluAsnAsnAspLysGluGluGluGluLys
                                                            ABDSerSerArgProSerThrProThrIleABDValLeuGluSerLyBABDThrABDSer
                                                                                                                GAGCGGATAAAGACCCCAAAAACGTCCAGGAGGCCGCAGAAGAGGACGGCTTCCCAAT
                                                                                                                              GluargIleLysThrProProLysArgProGlyGlyArgArgArgGlyArgLeuProAsn
                                                                                                                                                                                   GlyProGlnCysTyrGlnHisLeuGluGlyAlaLysGluPheAlaAlaAlaLeuThrAla 340
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                                                                    GluLeuPhePheAspTyrArgTyrSerGlnAlaAspAlaLeuLysTyrValGlyILeGlu
                                                                                                                                                                                                                 GlyAsnLysIleArgPheAlaAsnHisSerValAsnProAsnCysTyrAlaLysValMet
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ArgGluMetGluIlePro 746
                                                                                                                                         MetValAsnGlyAspHisArgIleGlyIlePheAlaLysArgAlaIleGlnThrGlyGlu
                                                                                                                                                                                               GGTAACAAAATTCGTTTTGCAAATCATTCGGTAAATCCAAACTGCTATGCAAAAGTTATG
                                                                                                                                                                                                                                                                     TACATGTGCAGCTTTCTGTTCAACTTGAACAATGATTTTGTGGTGGATGCAACCCGCAAG
                                                                                                                                                                                                                                                                                           TyrMetCysSerPheLeuPheAsnLeuAsnAsnAspPheValValAspAlaThrArgLys
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human immunodeficiency; cancer; Thi hyperfunction; antiallergic; antiinflammatory; antidiabetic; antilipaemic; antiinfective; anti-HIV; cytostatic.; gene therapy; antisense therapy; ribozyme therapy; gene; 88.
                                                                                                                                                                                                                                                                                                                                                                                                                                Human; STAT6-activating protein; drug screening; activator; i allergic disease; diabetes; allergic disease; inflammation; autoinmune disease; diabetes; hyperlipidaemia; cancer; infection; HIV infection; antiallerg human immunodeficiency; cancer; Thi hyperfunction; antiallerg antiinflammatory; antidiabetic; antilipaemic; antiinfective;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADG10641 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      activator; inhibitor,
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STAT6-activating proteins and encoded genes, applicable in diagnosis and developing drugs to treat allergic diseases, inflammations, autoimmune diseases, diabetes, hyperlipidemia, infections e.g. HIV, a WPI; 2003-140442/13. P-PSDB; ADG10642. 25-MAY-2001; 2001JP-00157043. 30-AUG-2001; 2001JP-00260681. 10-OCT-2001; 2001JP-00313175. Honda (ASAH) ASAHI KASEI KOGYO KK Matsuda Þ Muramatsu

Claim 4; SEQ ID NO 231; 2080pp; Japanese

and õ

The invention relates to 242 human STAT6-activating proteins and cDNAs care encoding them (ADG10411-ADG10894) and to sequences with 95% or more combined to the STAT6-activating proteins and their encoding nucleic acids. The invention also relates to recombinant vectors and host cells comprising a STAT6-activating protein-encoding nucleic acid; the comparising a STAT6-activating protein; antisense oligonucleotides and specific for a STAT6-activating protein; antisense oligonucleotides and proteins of screening for activators or inhibitors of STAT6-activating protein; comethods of screening for activators or inhibitors of STAT6-activating protein; compositions comprising a modulator of STAT6-activating protein; compositions comprising a modulator of STAT6-activating proteins; compositions comprising a modulator of STAT6-activating proteins; compositions comprising a modulator of STAT6-activating proteins; compositions of treating patients by administration of the drug compositions. The STAT6-activating proteins, concleic acids encoding them, and modulators of their activity or compositions controlled to the diagnosis and treatment of allergic cancer, infections (e.g., HIV), cancer and disorders associated with Th1 composition. The present sequence is related to the invention.

Sequence 2558 BP; 808 A; 513 Ç 612 G; 625 T; 0 U; 0 Other;

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Percent Similarity:
Best Local Similarity:
Query Match:
                                      No.:
7.64e-301
4038.00
99.7%
99.7%
99.7%
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              Length:
Matches:
Conservative:
Mismatches:
Gaps:
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RESULT

US-10-773-302-2 (1-746)x ADG10641 (1-2558)

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701 MetValAsnGlyAspHisArgIleGlyIlePheAlaLysArgAlaIleGlnThrGlyGlu 	В Qу		
681 GlyAsmLysIleArgPheAlaAsmHisSerValAsmProAsmCysTyrAlaLysValMet	g &		GlyProGlnCysTyrGlnHisLeuGluGlyAlaLysGluPheAlaAlaAlaLeuThrAla
661 TyrMetCysSerPheLeuPheAsnLeuAsnAsnAspPheValValAspAlaThrArgLys 	dg Qy		AlaThrProAsnThrTyrLysArgLysAsnThrGluThrAlaLeuAspAsnLysProCys
641 TyrCysGlyGluIleIleSerGlnAspGluAlaAspArgArgGlyLysValTyrAspLys 	B 8		PheHisThrLeuPheCysArgArgCysPheLysTyrAspCysPheLeuHisProPheHis
621 ValAlaGlyTrpGlyIlePheIleLysAspProValGlnLysAsnGluPheIleSerGlu 	B 8		ThrProAsnIleAspGlyProAsnAlaLysSerYalGlnArgGluGlnSerLeuHisSer
601 CysLysAsnCysSerIleGlnArgGlySerLysLysHisLeuLeuAlaProSerAsp 	<u> </u>		241 LysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuProProGluCys 260
581 AspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAspSerLysAsnValSer 	유 성	<u> </u>	221 AsplysIlePheGluAlaIleSerSerMetPheProAsplysGlyThrAlaGluGluLeu 240
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541 AspheCysGluLysPheCysGlnCysSerSerGluCysGlnAsnArgPheProGlyCys	da Vo		181 TyrasnaspaspaspaspaspaspaspaspasperoGluGluargGluGluLysGln 200
521 GlnProCyaAspHiaProArgGlnProCysAspSerSerCysProCysValI1eAlaGln	dg dg		161 ArgGluCyeGlyPheIleAsnAspGluIlePheValGluLeuValAsnAlaLeuGlyGln 180
	ag Qy		141 GlnAspGlyThrPheIleGluGluLeuIleLysAsnTyrAspGlyLysValHisGlyAsp 160
481 ProblaGlibepValbepThrProProbrejzyeLyeLyeLyeLyeHisbrgLeuTrpbla 	g dg		121 MetValGluAspGluThrValLeuHisAsnIleProTyrMetGlyAspGluValLeuAsp 140
	g Qy		101 LeußsnälaValalaSerValProlleMetTyrSerTrpSerProLeuGlnGlnäsnPhe 120
AGA	₽ \$		81 ArgGluCysSerValThrSerAspLeuAspPheProThrGlnValIleProLeuLysThr 100
	\$ B 8		61 LysGlnArgArgIleGlnDroValHisIleLeuThrSerValSerSerLeuArgGlyThr 80
	D		41 MetPheSerSerAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnGluTrp 60
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                                            The invention relates to a method for detecting a lung cancer-associated transcript in a cell from a patient, comprising contacting a biological seample from the patient with a polynucleotide that selectively hybridises to a sequence that is at least 80 % identical to a gene that exhibits increased or decreased expression in lung cancer samples. Lung cancer-associated polynucleotides and polypeptides are used for identifying a compound that modulates a lung cancer-associated polypeptide, for cancer inhibiting proliferation of a lung cancer-associated cell to treat lung cancer in a patient and for treating a mammal having lung cancer by administering a modulatory compound identified. The methods are useful for treating lung cancer, such as small cell lung cancer, non-small cell lung cancer or other benign or precancerous lesions, e.g. atelectasis, cemphysema, bronchitis, chronic obstructive pulmonary disease, fibrosis, hypersensitivity pneumonitis, interstitial pulmonary fibrosis, asthma and bronchicatesis. The genes, polynucleotides and polypeptides are useful for diagnostic purposes and as targets for screening for therapeutic compounds that modulate lung cancer, such as antibodies. Sequences hax7612-ABX76474 represent lung cancer-associated polynucleotides of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09-NOV-2001;
13-NOV-2001;
29-NOV-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                   Detecting a lung cancer-associated transcript in a cell from a patient for treating lung cancer, by contacting a biological sample from the patient with a polynucleotide that exhibits increased or decreased
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                                                                                                                             . No.:
                                                                                                                                                                                                                                                   The invention relates to an inhibitory RNA (RNAi) molecule derived from a nucleic acid molecule comprising a defined nucleic acid sequences given in the specification or a sequence which hybridizes to the sequences and encodes a Notch signaling target gene or which is a degenerate as a result of the genetic code of the sequences. The methods and compositions of the present invention are useful for manipulating the phenotype of stem cells, preferably pluripotent stem cells. This sequence corresponds to one of the nucleic acid molecules of the invention.
                                                                                                                                                                                                        Sequence 2576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New inhibitory RNA molecule for manipulating the phenoty stem cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ds; gene; inhibitory RNA; RNAi; Notch signaling target gene; phenotype; pluripotent stem cell.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; SEQ ID NO 78; 157pp; English.
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GlyProGlnCysTyrGlnHisLeuGluGlyAlaLysGluPheAlaAlaAlaLeuThrAla
ThrProasnIleaspGlyProasnAlaLysSerValGlnArgGluGlnSerLeuHisSe.
LysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuProProGluCys
AspLys1lePheGluAlaIleGerSerMetPheProAspLysGlyThrAlaGluGluLeu
TATAATGATGATGACGATGATGATGATGAGGAGGACGATCCTGAAGAAGAAGAAAAGCAG LysaspLeuGluaspHisargaspAspLysGluSerArgProProArgLysPheProSer [
GlnAspGlyThrPheIleGluGluLeuIleLysAsnTyrAspGlyLysValHisGlyAs
MetValGluAepGluThrValLeuHisAenIleProTyrMetGlyAepGluValLeuAsp
LeuAsnAlaValAlaSerValProIleMetTyrSerTrpSerProLeuGlnGlnAsnPhe
ArgGluCysSerValThrSerAspLeuAspPheProThrGlnValIleProLeuLysThr
LysglnargargIleglnProValHisIleLeuThrSerValSerSerLeuArgGlyThr
MetPheSerSerAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnGluTrp
SerGluTyrMetArgLeuArgGlnLeuLy8ArgPheArgArgAlaAspGluValLy8Ser

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10-FEB-2002;
13-FEB-2002;
20-FEB-2002;
29-MAR-2002;
04-APR-2002;
11-APR-2002;
15-JUN-2002;
16-JUL-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21-NOV-2001;
29-NOV-2001;
03-DEC-2001;
The invention relates to nucleic acids and proteins (ADN38683-ADN40064) whose expression is upregulated or downregulated in specific cancers or other diseases such as angiogenic or fibrotic disorders, and to methods of determining the presence or absence of a pathological cell in a patient by detecting a nucleic acid at least 80% identical to those of the invention or by detecting a polypeptide of the invention. The invention also relates to expression vectors and host cells comprising a nucleic acid of the invention; antibodies which specifically bind a polypeptide of the invention; use of such antibodies for drug targeting,
                                                                                                                                                                                                                                                                                                                                                 Afar
Mack
                                                                                                                                                                                                                    Determining the presence or absence of a pathological useful for diagnosing, prognosing or treating cancer, a nucleic acid in a biological sample.
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                                                                                                                                                                                                                                                   LysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuProProGluCys
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                                                                                                                                     LysAspLeuGluAspHisArgAspAspLysGluSerArgProProArgLysPheProSer
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                                                                                                                                                                                                                                                          ds; breast cancer; prognosis; gene expression; diagnosis.
                                                                                                                                                                                                                                                                        Breast cancer prognosis marker #1043.
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Classifying a breast cancer patient according to prognosis comprises determining the similarity between the level of expression of each of the genes in a cell sample taken from patient, to control levels. Ġ,

Disclosure; SEQ ID NO 1043; 226pp; English

The invention relates to a method of classifying a breast cancer patient according to prognosis by determining the similarity between the level of expression of each of five genes for which markers are listed in the specification, in a cell sample taken from the breast cancer patient to control levels of expression for each respective five genes to obtain a patient similarity value. The methods are useful for classifying a breast cancer patient according to prognosis. Kits and computer program products are useful for data analysis using the diagnostic, prognostic and statistical methods of the invention. This sequence corresponds to a marker used in the method of the invention.

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621

ValAlaGlyTrpGlyIlePheIleLysAspProValGlnLysAsnGluPheIleSerGlu

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Qy 241 LysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuProProGluCys 260	Qy 201 LysäspLeuGluäspHisärgäspäspLysGluSerärgProProArgLysPheProSer 220	Qy 161 ArgGluCysGlyPheIleAsnAspGluIlePheValGluLeuValAsnAlaLeuGlyGln 180	OY 121 Met Valid-LASpGlUThrValideH18ASBILEPROTYPMet GLYASpGLUVALICHAB 140	298 AGGAGTGTTCGGTGACCAGTGACTTGGATTTTCCAACAAGTCATCCCATTAAAGACT 101 LeuAsnAlaValAlaSerValProIleMetTyrSerTrpSerProLeuGlnGlnAsnPhe 101 [61 IygGlnArgArgIleGlnProValHisIleLeuThrSerValSerSerLeuArgGlyThr	118 TCAGAGTACATGCGACTGAGACAGATCAGAGGTTCAGACGAGCTGATGAAGTAAAGAGT 41 MetPheSerSerAsnargGlnLysileLeuGluArgThrGluIleLeuAsnGlnGluTrp 41 MetPheSerSerAsnargGlnLysileLeuGluArgThrGluIleLeuAsnGlnGluTrp 178 ATGTTAGTTCCAAGTGTAGAAATTTTGGAAAGGGAAAGTTAAACCTAGAATGTGTAGAAGTATGGTAAAGGGAAAGTTTGGAAAGGGAAAGTTTAGAACGGAAAATTTTGGAAAGGGAAAGTTTAGAACGGAAAGTTTAGAAGGGAAAGTTTAGAACGGAAAGTTTAGAACGGAAAGTTTAGAAGGGAAAGTTTAGAAGGGAAAGTTTAGAACGGAAAGTTTAGAAGGGAAAGTTTAGAAGGGAAAGTTTAGAAGGGAAAGTTTAGAAGGGAAAGTTTAGAAGGGAAAGTTTAGAAGGGAAAGTTTAGAAAGGGAAAGTTTAGAAGGGAAAGTTTAGAAAGGGAAAGTTTAGAAAGGGAAAGTTTAGAAGGGAAAGTTTAGAAAGGGAAAGTTTAGAAAGGGAAAGTTTAGAAAGGGAAAGTTTAGAAAGGGAAAGTTTAGAAGGGAAAGTTTAGAAAGGGAAAGTTTAGAAGGGAAAGTTTAGAAGGAAAGTTTAGAAGGAAAGTTTAGAAAGGGAAAGTTTAGAAGGGAAAGTTTAGAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTAAAGGAAAGTTAGAAGGAAAGTTAGAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAGTTAGAAGGAAAAGTTTAGAAAGGAAAGTTTAGAAAGGAAAAGTTTAGAAAGGAAAAGTTTAGAAAGGAAAAGTTTAGAAAGGAAAGTTAGAAAGGAAAAGTTTAGAAAGGAAAAGTTAGAAAGGAAAAAGTTAGAAAGAAAAATTTAGGAAAAGAAAAAA	1 N 58 A 58 A 51 S 58 A 51	al Similarity: 99.7% Mismatches 99.7% Indels: 13 Gaps: 13-746) y Anportac (1-2576)	7.71e-301 Length: 4038.00 Matches: 99.7% Conservative:	SQ Sequence 2576 BP; 826 A; 513 C; 612 G; 625 T; 0 U; 0 Other;
Db 1858 TGCAAGAACTGCAGTATTCAGCGGGCTCCAAAAAGCATCTATTGCTGCAGCACCATCTGAC 1917 Oy 621 ValAlaGlyTrpGlyIlePheIleLysAspProValGInLysAsmGluPheIleSerGlu 640 ISTA GTGCCAGGCTGGGGGATTTTTATTCAAAGATCAAATTCAATTCATCATCATCAAAA 1977 Oy 641 TyrCysGlyIlleIleSerGlnAspGluAlaAspArgArgGlyLysValTyrAspLys 660 ISTA GTGCCAGGAGATTATTTCCAAGATGAAAGATGAAAAATGAATTCATCTCAGAA 1977 Oy 641 TyrCysGlyGluIleIleSerGlnAspGluAlaAspArgArgGlyLysValTyrAspLys 660 ISTA GTGCGAGAGATTATTTCCCAAGATGAACAGAAGAGGGAAAGTGTATGATAAA 2037 Oy 661 TyrMetCysSerPheLeuPheAsnLeuAsnAspPheValValAspAlaThrArgLys 680		OV 541 AGGCYGTAGARAGTTTTGTCAAAGTTTCAGAGGTTCAAGAGTTCCAGGAGGTTCCAGGGATGC 1737 Db 1618 CAACCCTGTGATCATCCACGGCAGCCTTGTGACAGTTCGTGTGTGATAGCACAA 1677 Oy 541 AsnPheCysGluLysPheCysGlnCysSerSerGluCysGlnAsnArgPheProGlyCys 560		Db 1378 AGAGTCCTCATTGGCACTTACTATGACAATTTCTGTGCCATTGCTAGGTTAATTGGGACC 1437 Oy 461 LysThrCysArgGlnValTyrGluPheArgValLysGluSerSerIleIleAlaProAla 480	421 LysProAsmIleGluProProGluAsmValGluTrpSerGlyAlaGluAlaSerMetPhe	Db 1198 ĠĀTĀĠĠĀĀĠĊĀĠĠĀČTĠĀĀČĠĠĠĀĠĀĠĀĀĀĀĀĀĀĀĀĀĀĀĀ	Oy 361 ASDSerSerArgProSerThrProThr]eASDValLeuGluSerLysAspThrAspSer 380	341 GluargIleLysThrProProLysArgProGlyGlyArgArgArgGlyArgLeuProAsn 	321 GlyProGlnCysTyrGlnHsGeuGluGlyAlaLysGluPheAlaAlaAlaLeuThrAla	Db 958 GCBACACCCBACACTTRTAAGCGGAAGAACACAGAACAGCTCTAGACAACCTTGT 1017

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This invention relates to a novel human diaphanous-3 (DIAPH3) protein and CC the encoding polynucleotide thereof. Specifically, it refers to the use CC of DIAPH3 cDNA in the prognosis of breast cancer, such that the DIAPH3 CC protein can be used as a target for anti-cancer drugs or for the CC identification of molecules with anti-cancer activity. The present CC invention provides antibodies that specifically bind to the DIAPH3 CC protein, as well as methods to identify an agent that modulates the CC binding of DIAPH3 to a binding partner. In particular it describes CC measuring the expression level of DIAPH3 using hybridization oligos and CC comparing this with a control expression level, where a raised expression level indicates a poor prognosis with respect to breast cancer. As such, CC it also provides small interfering RNA oligos that can hybridize to the CC concer and inhibit expression thereof. The peptide and nucleic acid Sequences of this invention are useful as markers to differentiate CC patients with a good prognosis from those with poor prognosis for breast CC cancer and are useful as targets for screening assays designed to concer and are useful as targets for breast cancer. Accordingly, which in turn are used for treating breast cancer. Accordingly, they can be used in gene therapy and exhibit cytostatic activity. This polynucleotide sequence is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New purified diaphanous-3 (DIAPH3) peptides and nucleic acids, targets for screening assays designed to identify inhibitors on modulators of DIAPH3 activity, which are useful for treating by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
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                                                                                                                                              AAGGAAAAATATAAAGAACTCACCGAACAGCAGCTCCCAGGCGCACTTCCTGAATGT
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897 280 837 260 777 240 717 220 657 200 597 180 537 160 477 a human gene marker that when expression is upregulated in a patient sample it is correlated with a poor prognosis for breast cancer, given exemplification of the invention. given 'n

625 T; 0 U; 0 Other;

Length: Matches: Conservative: Gaps: Mismatches: Indels:

-773-302 1	-773-302-2 (1-746) x ADY61813 (1-2576) 1 MetGlyGlnThrGlyLysLysSerGluLysGlyEroValCysTrpArgLysArgValLys 20 	0
21	SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArgAlaAspGluValLysSer	40
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238	AAACAGCGAAGGATACAGCCTGTGCACATCCTGACTTCTGTGAGCTCATTGCGCGGGACT	297
82	81 ArgGluCysSerValThrSerAspLeuAspPheProThrGlnVallleProLeuLysThr 1	100
298	AGGAGTGTTCGGTGACCAGTGACTTTGCGATCACACACAAGTCATCCCATTAAAGACT	357
101	LeuAsnAlaValAlaSerValProIleMetTyrSerTrpSerProLeuGlnGlnAsnPhe	120
358	CTGAATGCAGTTCCTTCAGTACCCCATAATGTATTCTTGGTCTCCCCTACAGCAGAATTTT	417
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                                                          ValAlaGlyTrpGlyIlePheIleLy8AspProValGlnLy8AsnGluPheIleSerGlu
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The invention relates to an agent for the prophylaxis and therapy of cancer comprising a compound which inhibits the activity or expression channes EZH2 (enhancer of zeste homonlogue 2), resulting in apoptosis. The EZH2 inhibitors include anti-EZH2 antibodies and EZH2 antisense nucleic acids. The invention also relates to a kit for screening for inhibitors

Disclosure;

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                                                                       Novel prophylactic and therapeutic agent of cancer, having compound or its salt that inhibits activity of enhancer of zeste Drosophila homolog2 protein, useful for treating cancer such as lung cancer, breast cancer.
                                                                                                                                                                                                                                                                                                                                                                                                    Human EZH2 (enhancer of zeste
                                                                                                              P-PSDB;
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                                                                                                                                                                                                                                                                                                                                          Human; EZH2; enhancer of zeste homologue 2; chromosome 7q35; histone methyltransferase; histone H3; cell cycle; tumorigenesi inhibitor; apoptosis; cancer; colorectal cancer; breast cancer; lung cancer; pancreatic cancer; ovarian cancer; drug screening; prophylaxis; prevention; diagnosis; cytostatic; gene; ds.
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                                    HisValTyrAsnTyrGlnProCysAspHisProArgGlnProCysAspSerSerCysPro
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P-PSDB;
                                                Novel prophylactic and therapeutic agent of its salt that inhibits activity of enhancer protein, useful for treating cancer such as
                                                                                                                                                                                                         Hikichi Y,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human BZH2 (enhancer of zeste homologue
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      Example 3; SEQ ID
                                                                                                                                                                                                                                                                                               24-DEC-2002; 2002JP-00373144
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; EZH2; enhancer of zeste homologue 2; chromosome 7q35; histone methyltransferase; histone H3; cell cycle; tumorigenesis; inhibitor; apoptosis; cancer; colorectal cancer; breast cancer; lung cancer; pancreatic cancer; ovarian cancer; drug screening; prophylaxis; prevention; diagnosis; cytostatic; gene; ds.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to an agent for the prophylaxis and therapy of CC cancer comprising a compound which inhibits the activity or expression of CC human EZH2 (enhancer of zeste homologue 2), resulting in apoptosis. The CC thuman EZH2 (enhancer of zeste homologue 2) resulting in apoptosis. The CC inhibitors include anti-RZH2 antibodies and EZH2 antisense nucleic CC acids. The invention also relates to a kit for screening for inhibitors CC fistone methyltransferase activity which methylates histone H3 on lysine CC residues at position 9 and/or 27. It has been found to be deregulated in CC various tumours, and acts as a mediator of tumorigenesis, being able to CC reverse repression of cyclin A which in turn mediates cell cycle advancement. The agent of the invention can be used for preventing, CC treating and diagnosing cancers such as colorectal cancer, breast cancer, CL lung screening. The agent of the invention is safe and less toxic than prior art cancer prophylactic/therapeutic agents. The present sequence conventions and a DNA encoding human EZH2 which was used in an example of the
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                                                                       ArgGluCysGlyPheIleAsnAspGluIlePheValGluLeuValAsnAlaLeuGlyGln
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555 1846	36 CYBVAlileAlaGlnAsnPheCYsGluLysPheCYsGlnCysSerSerGluCysGl
535 1786	16 HisValTyrAsı 27 CATGTTTACAA
515 1726	96 HisargLeuTrpalaalaHisCysargLysIleGlnLo
495 1666	76 IleIleAlaProAlaProAlaGluAspValAsj
475 1606	6 ArgLeuIleGlyThrLysThrCysArgGlnValTyrGluPhe
15	6 GlualaSermetPheargValLeuIleGlyThrTyrTyrAsp.
43 14	16 ThrProlleLysMetLysProAsnIleGluProProGluAsnValGluTrpSerG:
14	6 GluGluGluGluIy8Ly8AspGluThrSerSerSerSerGluAlaAsnSerArgC
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375 1306	356 GlyargLeudroasnasnSerSerargProSerThrProThrIleasnValLeugluSer
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335 1186	16 AspasnLysProCysGlyProGlnCysTyr(
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280 1006	roasnileaspGlyProasnalalysServalGlnargGl CCAACATAGATGGACCAAATGCTAAATCTGTTCAGAGAGA
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576 AlavalargGluCysAspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTTpAsp	TyrValGlyIleGluArgGluMetGluIlePro	736	ঠ
576 AlaValArgGluCysAspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAsp	ATCCAGACTGGCGAAGAGCTGTTTTTTGATTACAGATACAGCCAGGCTGATGCCCTGAAG	2327	片
576 AlaValArgGluCysAspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAsp	IleGlnThrGlyGluGluLeuPhePheAspTyrArgTyrSerGlnAlaAspAlaLeuLys	71(S
576 alavalargGluCysAspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTTpAsp	TATGCAAAAGTTATGATGGTTAACGGTGATCACAGGATAGGTATTTTTTGCCAAGAGAGCC	226	문
576 AlaValArgGluCysAspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAsp	TyrAlaLysValMetMetValAsnGlyAspHisArgIleGlyIlePheAlaLysArgAla	69	S
576 AlaValArgGluCysAspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAsp	GATGCAACCCGCAAGGGTAACAAAATTCGTTTTGCAAATCATTCGGTAAATCCAAACTGC	2207	닭
576 AlaValArgGluCysAspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAsp	AspAlaThrArgLysGlyAsnLysIleArgPheAlaAsnHisSerValAsnProAsnCys	67(S
576 AlavalargGluCysAspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAsp	AAAGTGTATAAATACATGTGCAGCTTTCTGTTCAACTTGAACAATGATTTTGTGGTG	2147	뫄
576 alavalargGluCysAspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAsp	LygValTyrAspLygTyrMetCysSerPheLeuPheAsnLeuAsnAsnAspPheValVal	65(Ş
576 AlavalargGluCysAspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAsp	GAATTCATCTCAGAATACTGTGGAGAGATTATTTCTCAAGATGAAGCTGACAGAAGAGGG	2087	밁
576 AlaValArgGluCysAspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAsp	GluPheIleSerGluTyrCysGlyGluIleIleSerGlnAspGluAlaAspArgArgGly	63(Ş
576 AlaValArgGluCysAspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAsp	CTGGCACCATCTGACGTGGCAGGCTGGGGGATTTTTATCAAAGATCCTGTGCAGAAAAAT	2027	닭
576 AlaValArgGluCysAspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAsp	LeuAlaProSerAspValAlaGlyTrpGlyIlePheIleLysAspProValGlnLysAsn	616	8
576 AlaValArgGluCygAspProAspLeuCygLeuThrCygGlyAlaAlaAspHisTrpAsp	AGTAAAAATGTGTCCTGCAAGAACTGCAGTATTCAGCGGGGCTCCAAAAAGCATCTATTG	1967	뮍
576 AlaValargGluCysAspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAsp 	SerLysAsnValSerCysLysAsnCysSerIleGlnArgGlySerLysHisLeuLeu	596	Ş
576 AlaValArgGluCysAspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAsp	GCTGTCCGAGAGTGTGACCTCTGTCTTACTTGTGGAGCCGCTGACCATTGGGAC	1907	밁
	AlaValArgGluCysAspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAsp	576	Ş

Search completed: August 13, 2006, 13:49:22 Job time: 1222.01 secs

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Command line parameters:

-MODEL=frame+_p2n.model -DEV=xlp
-Q=/abss/ABSWEB_spool/US10773302/runat_11082006_140227_16665/app_query.fasta_1
-Q=/abss/ABSWEB_spool/US10773302/runat_11082006_140227_16665/app_query.fasta_1
-DB=EST -QPMT=fastap -SUPFIX=p2n.rst -MINMATCH=0.1 -LOOPCL=0 -LOOPEXT=0
-UNITS=bits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45
-DCCALIGN=200 -THR_SCORS=pct -THR MAX=100 -THR MIN=0 -ALICN=15 -MODE=LOCAL
-UUTFMT=pto -NORM=pxt -HRAPSIZES=500 -MINLEN=0 -MAXLEN=2000000000 -HOST=abss05p
-USER=US10773302_@CGN 1_1_12176_@runat_11082006_140227_16665 -NCPU=6 -ICPU=3
-NO MMAP -NEG_SCORSS=0 -WAIT -DSPBLOCK=100 -LONGLOG -DEV_TIMEOUT=120
-MAEN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -PGAPOP=6 -PGAPEXT=7
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Maximum Match 100%
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Maximum DB seq length: 200000000
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Perfect score:
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. 0		2	9	35.0	35.0	5	35.2	5	5	35.3	35.5	35.6	5	5	36.0	36.4	36.8	37.0	7.	37.1	37.1	37.2	37.4	7.	.7		8	38.6	8	9	७.		0	50.6	9	56.5		60.8	64.0	64.3	64.3
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ALIGNMENTS

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	JOURNAL Ge PUBMED 11	TITLE NO	AUTHORS Ca	_	F		AUTHORS Ca	REFERENCE 1	Sc	Ма	Bu	ORGANISM Mu	SOURCE Mu	KEYWORDS HT	VERSION AK	ACCESSION AK	fi c	DEFINITION Mu	LOCUS AK	RESULT 1 AK157853	
3 Shibata,K., Itoh,M., Aizawa,K., Nagaoka,S., Sasaki,N., Carninci,P.,	prepare full-length cDNA libraries for rapid discovery of new genes Genome Res. 10 (10), 1617-1630 (2000) 11042159	Itoh, M., Konno, H., Okazaki, Y., Muramatsu, M. and Hayashizaki, Y. Normalization and subtraction of cap-trapper-selected cDNAs to	Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K.,	10349636	Meth. Enzymol. 303, 19-44 (1999)	High-efficiency full-length cDNA cloning	rninci,P. and Hayashizaki,Y.		Sciurognathi; Muroidea; Muridae; Murinae; Mus.	Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia;	<pre>Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;</pre>	Mus musculus	Mus musculus (house mouse)	HTC; CAP trapper.	AK157853.1 GI:74186125	AK157853	<pre>clone:K0C0026B09 product:enhancer of zeste homolog 2 (Drosophila), full insert sequence.</pre>	Mus musculus erythroblast cDNA, RIKEN full-length enriched library,	AK157853 2652 bp mRNA linear HTC 21-SEP-2005		

JOURNAL PUBMED REFERENCE

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AUTHORS

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Okazaki, Y., Furuno, M., Kasukawa, T., Adachi, J., Bono, H., Kondo, S., Nikaido, I., Osato, N., Salto, R., Suzuki, H., Yamanaka, I., Kiyosawa, H., Yagi, K., Tomaru, Y., Hassgawa, Y., Nogami, A., Schombach, C., Gojobori, T., Baldarelll, R., Hill, D.P., Bult, C., Hume, D.A., Quackenbush, J., Schriml, L.M., Kanapin, A., Matsuda, H., Batalov, S., Belsel, K. W., Blake, J.A., Bradt, D., Brusic, V., Chothia, C., Corbani, L.B., Cousins, S., Dalla, E., Dragani, T.A., Fletcher, C.F., Forrest, A., Frazer, K.S., Gasterland, T., Gariboldi, M., Gissi, C., Godzik, A., Gough, J., Grimmond, S., Gustincich, S., Hirokawa, N., Jackson, I.J., Jarvis, E.D., Kanai, A., Kurochkin, I.V., Lee, Y., Lenhard, B., Lyons, P.A., Maglott, D.R., Narchiomni, L., McKenzie, L., Miki, H., Nagashima, T., Maltais, I., Marchiomni, L., McKenzie, L., Miki, H., Nagashima, T., Petrovsky, N., Pillai, R., Pontius, J.U., Qi, D., Kamachandran, S., Petrovsky, N., Pillai, R., Pontius, J.U., Qi, D., Kamachandran, S., Petrovsky, N., Pillai, R., Pontius, J.U., Qi, D., Kamachandran, S., Ravasi, T., Reed, J.C., Reed, D.J., Reid, J., Ring, B.Z., Ringwald, M., Sandelin, A., Schneider, C., Semple, C.A., Setou, M., Shimada, K., Sultana, R., Takenaka, Y., Taylor, M.S., Teasdale, R.D., Tomita, M., Verardo, R., Wagner, L., Wahlestedt, C., Wang, Y., Watanabe, Y., Watanabe, Y., Watanabe, Y., Yang, L., Watanabe, Y., Watanabe, Y., Watanabe, Y., Matanabe, Y., Sakazume, N., Sato, K., Shiraki, T., Waki, K., Kawai, J., Aizawa, M., Yang, I., Mayazaki, A., Sakai, K., Sasaki, D., Shibata, K., Sakazume, N., Sato, K., Shiraki, T., Waki, K., Kawai, J., Aizawa, K., Sakazume, N., Sato, K., Shiraki, Y., Sakazume, N., Shiraka, K., Sakai, K., Sasaki, D., Shibata, K., Sakai, K., Sasaki, D., Shibata, K., Sakai, K., Sasaki, D., Shibata, K., Sabos, S., Sato, S., Sato, S., Sato, S., Sato, S., Sato, S., Sato, S., Sato, S., Sato, S., Sato, S., Sato, S., Sato, S., Sato, S., Sato, S., Sato, S., Sato, S., Sato, S., Sato, S., Sato, S., Sato, S., Sato, S., Sato, S., Sato, S., Sato, S., Sato, S., Sato, S
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Carninci,P., Kasukawa,T., Katayama,S., Gough,J., Frith,M.C., Maeda,N., Oyama,R., Ravasi,T., Lenhard,B., Wells,C., Kodzius,R., Shimokawa,K., Bajio,V.B., Brenner,S.E., Batalov,S., Forrest,A.R., Zavolan,M., Davis,M.J., Wilming,L.G., Aidinis,V., Allen,J.E.,
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Functional annotation of a full-length mouse cDNA collection Nature 409 (6821), 685-690 (2001)
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COMMENT

CDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in R. Genomic Sciences Center and Genome Science Labbratory in RIKEN Division of Experimental Animal Research in Riken contributed (

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prepare mouse tissues.
Tissues were provided by Hiromitsu Nakauchi (Center for Tissues were provided by Hiromitsu Nakauchi (Center for Experimental Medicine, Institute of Medical Science, Unit Tokyo 4-6-1, Shirokane-dai, Minato-ku, Tokyo, 108-8639, Control of the Control of

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Ambesi-Impiombato, A., Apweiler, R., Aturaliya, R.N., Bailey, T.L., Bansal, M., Baxter, L., Beisel, K.W., Bersano, T., Bono, H., Chalk, A.M., Chutterbuck, D.R., Crowe, M.L., Dalla, B., Dalrymple, B.P., de Bono, B., Della Gatta, G., di Bernardo, D., Down, T., Engstrom, P., Regiolini, M., Faulkner, G., Fletcher, C.F., Fukushima, T., Furuno, M., Futaki, S., Gariboldi, M., Goorgii-Hemming, P., Gingeras, T.R., Gojobori, T., Green, R.B., Gostincich, S., Harbers, M., Hayashi, Y., Hensch, T.K., Hirokawa, N., Hill, D., Huminiecki, L., Iacono, M., Ikeo, K., Iwama, A., Ishikawa, T., Jaki, M., Kanapin, A., Katoh, M., Kawasawa, Y., Kalso, J., Kitamura, H., Kurochkin, I.V., Lareau, L.F., Lazarevic, D., Lipovich, L., Liu, J., Kitamura, H., Kurochkin, I.V., Lareau, L.F., Lazarevic, D., Lipovich, L., Liu, J., Kitamura, H., Matsuda, H., Matsuzawa, S., Misi, H., Mignone, F., Miyake, S., Mortis, F., Marani, K., Makano, N., Nakano, N., Nakauchi, H., Mgnoris, K., Mottagui-Tabar, S., Mulder, N., Nakano, N., Nakauchi, H., Ng, P., Nilsson, R., Nishiguchi, S., Nishikawa, S., Nori, F., Chazaki, Y., Orlando, V., Pang, K.C., Pavan, W.J., Pavesi, G., Petrovsky, N., Piazza, S., Reed, J., Reid, J.F., Ring, B.Z., Schneider, C., Schonbach, C., Sekiguchi, K., Sandelin, A., Schal, J., Sheng, Y., Shibata, Y., Shimada, H., Shimada, K., Silva, D., Sessa, L., Sheng, Y., Shibata, Y., Shimada, H., Shimada, K., Sultuna, R., Wei, C.L., Yagi, K., Yamanishi, H., Zabarovsky, E., Zhu, S., Zimmer, A., Hide, W., Bult, C., Grimmond, S.M., Teasdale, R.D., Liu, E.T., Kawaji, H., Kawajashira, N., Kawashima, T., Kodima, M., Katoh, M., Satoh, T., Okada, M., Shiraki, T., Shibata, K., Shiraki, T., Suzuki, S., Stuki, M., Okamura-Oho, Y., Suzuki, H., Kawai, J. and Hayashizaki, Y., Wathiki, A., Nakano, N., Niomiya, N., Niomi, A., Niomiya, N., Nakani, M., Waki, K., Wathiki, A., Okamura-Oho, Y., Suzuki, H., Kawai, J. and Hayashizaki, Y.
Submitted (30-MAR-2004) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa, 230-0045, Japan (B-mail:genome-res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/, Tel:81-45-503-9222, Fax:81-45-503-9216)
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/db_xref="FANTOM_DB:KOC0026B09"
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
Hominidae; Homo.

1 (bases 1 to 2241)
Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A.,
Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B.,
Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J.,
Adams, M.D. and Cargill, M.
Inferring nonneutral evolution from human-chimp-mouse orthologous
                                                                                                                                                                                                                                                                                                     2241 bp
Homo sapiens EZH2 gene, VIRTUAL
genomic survey sequence.
AY399441
AY399441.1 GI:39755430
2 (bases 1 to 2241)
Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Ferriera, S., Mang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.
Direct Submission
                                                                                                    Science 302 (5652), 1960-1963 (2003)
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This sequence was made by sequencing genomic them based on alignment.
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    LysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuProProGluCys
                                TyrAsnAspAspAspAspAspAspAspGlyAspAspProGluGluArgGluGluLysGln
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/mol_type="genomic DNA"
/db_xref="taxon:9606"
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/gene="EZH2"
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CysLysAsnCysSerIleGlnArgGlySerLysLysHisLeuLeuLeuAlaProSerAsp
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                                                                                                                                                                                                                               CAACCCTGTGATCATCCACGGCAGCCTTGTGACAGTTCGTGCCCTTGTGTGATAGCACAA
                                                                                                                                                                                                                                                                                          GCACACTGCAGAAAGATACAGCTGAAAAAAGGACGGCTCCTCAACCATGTTTACAACTAT
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Inferring nonneutral evolution from human-chimp-mouse orthologous
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Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia;
Sciurognathi; Muroidea; Muridae; Murinae; Mus.
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/mol_type="genomic DNA"
/db_xref="taxon:10090"
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21 SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArgAlaAspGluValLysSer 40	1 MetGlyGlnThrGlyLysSerGluLysGlyProValCysTrpArgLysArgValLys 20	14 Gaps:	5.00 8.00 8.00 8.00 8.00 8.00 8.00 8.00	Scores: 7.01e-234 Length: 2635.00 Matches:	/locus_tag="HCM0225"		/organism="Pan troglodytes" /mol_type="genomic DNA" /db xref="taxon:9598"	Chem Dasec			Toda, M.A., Tahenbaum, D.M., Civello, D.K., Lu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams. M.D. and Carcill M.	2 (bases 1 Clark, A.G.,	gene trios Science 302 (5652), 1960-1963 (2003) 14671302	and Cargill,M. onneutral evolu	Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., M. Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sni	Clark.A.G., Glanowski.S., Nielson.R., Thomas.P., Kelariwal.A.,		Pan trogle	AY399442 AY399442.1 GI:			ZZZI CGAGAMATIGGAMATICCCI ZZ38	ArgGlumetGlullePro	NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN	GluLeuPhePheAsplyrArgTyrSerGlnAlaAspAlaLeuLysTyrValGlyIleGlu	NANNANANANANANANANANANANANANANANANANANAN	MetValAsnGlyAspHisArgIleGlyIlePheAlaLysArgAlaIleGlnThrGlyGlu	NINDINININININININININININININININININI	
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381 ABPATGG UALAGLYTHTG LYTHTG LYGLYGLUABHASHABDLYGGLUGLUGLUGLUGLUG G 	61 ABNSerSerArgProSerThrProThrIleABnValLeuGluSerLyBABpThrABpSer 	1021 GAGCGGATAAAGACCCCCACCAAAACGTCCAGGAGGCCGCAGAAGAGAGGACGGCCTTCCCCAAT 1080	961 NINNINNINNINNINNINNINNINNINNINNINGÄGGGÄGCÄÄÄGGÄGTTCGCTGCTGCTCTCÄCCGCT 1020 341 GluargilelysThreroerolysargeroglyglyargargargalyargleuproasn 360	321 GlyProGlnCysTyrGlnHisLeuGluGlyAlaLysGluPheAlaAlaAlaLeuThrAla 340	301 ALATHIPTOASHTHITYTLYSAIGLYSASHTHIGLUTHIALALEUASDASHLYSPIOCYS 320 901 ANNANANANANANANANANANANANANANANANANANA		281 PheHisThrLeuPheCysArgArgCysPheLysTyrAspCysPheLeuHisProPheHis 300	781 ACCCCAACATNNNTGGACCAAACGCTAAATCTGTTCNNNNNNNGCAAAGCTTANNNTCC 840	ייני של במשבת מתחות מתחות מתחות מתחות מתחות מתחות מתחות מתחות מתחות מתחות מתחות מתחות מתחות מתחות מתחות מתחות מ	LysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuProProGluCys	661 GATAAAATTTTTGAAGCCATTTCCTCAATGTTTCCAGATAAGGGCACAGCAGAAGAACTA 720	221 AspLysIlePheGluAlaIleSerSerMetPheProAspLysGlyThrAlaGluGluLeu 240	201 LYBASDLEUGILWASDHISAIGASDASDASDISSINSELAIGETOFTOKIGHAEGUSET 200 (1988) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		181 TyrhsnAspAspAspAspAspAspAspGlyAspAspProGluGluArgGluGluLysGln 200	481 AGAGNNTGTGGGTTTATAAANGNTGNAATTTTTGTNGNNNTGGTGAATNNNNNNNN	161 ArgGluCysGlyPheIleAsnAspGluIlePheValGluLeuValAsnAlaLeuGlyGln 180	14 GIRABDA YIRENELIEGIADA DEBUKAN KARINIYIR BDA INDESINA KARINIYAD 100 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	361 NNNGTGÁAÁGÁTGÁAAÁCTGTTTTACATAÁCATTCCTTATATGGÁAGATGÁAGTTTTTAGAC 420	121 MetValGluAspGluThrValLeuHisAsnIleProTyrMetGlyAspGluValLeuAsp 140	301 NAMANANANANANANANANANANANANANANANANANAN	101 LeuAsnAlaValAlaSerValProIleMetTyrSerTrpSerProLeuGlnGlnAsnPhe 120	241 NIKININININININININININININININININININ	81 ArgGluCysSerValThrSerAspLeuAspPheProThrGlnValIleProLeuLysThr 100	181 NINNNINNINNINNINNINNINNINNINNINNINNINNI	61 LysGlnArgArgIleGlnProValHisIleLeuThrSerValSerSerLeuArgGlyThr 80	121 NINNINNINNINNINNINNINNINNINNINNINNINNIN	41 MetPheSerSerAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnGluTrp 60	61 TCAGAGTACATGCGACTGAGACAGCTCAAGAGGTTCAGACGAGCTGATGAAGTAAAGNNN 120

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                                                                       GluLeuPhePheAspTyrArgTyrSerGlnAlaAspAlaLeuLysTyrValGlyIleGlu
                                                                                                                                                                                                                                                                                                                      TYTCYSGI
                                                                                                                                                                                                                                                                                                                                                                              ValAlaGlyTrpGlyIlePheIleLysAspProValGlnLysAsnGluPheIleSerGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ArgCysLysAlaGlnCysAsnThrLysGlnCysProCysTyrLeuAlaValArgGluCys
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AlaHisCysArgLysIleGlnLeuLysLysAspGlySerSerAsnHisValTyrAsnTyr
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ArgGluMetGluIlePro 746
                                             GlyAsnLysIleArgPheAlaAsnHisSerValAsnProAsnCysTyrAlaLysValMet
                                                                                                                                                                                                                                                   TyrMetCysSerPheLeuPheAsnLeuAsnAsnAspPheValValAspAlaThrArgLys
                                                                                                                                                                                                                                                                                                 TACTGTGGAGAGATTATTTCTCAAGATGAAGCTGACAGAAGAGGGGAAAGTGTATGATAAA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAspSerLysAsnValSer
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                                                                                                                                      MetValAsnGlyAspHisArgIleGlyIlePheAlaLysArgAlaIleGlnThrGlyGlu
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Okazaki, Y., Furuno, M., Kasukawa, T., Adachi, J., Bono, H., Kondo, S. Nikaido, I., Osato, N., Saito, R., Suzuki, H., Yamanaka, I., Kiyosawa, H., Yagi, K., Tomaru, Y., Hasegawa, Y., Nogami, A., Schonbach, C., Gojobori, T., Baldarelli, R., Hill, D.P., Bult, C., Hume, D.A., Quackenbush, J., Schriml, L.M., Kanapin, A., Matsuda, H., Batalov, S., Beisel, K.W., Blake, J.A., Bradt, D., Brusic, V., Chothia, C., Corbani, L.E., Cousins, S., Dalla, E., Dragani, T.A., Fletcher, C.F., Forrest, A., Frazer, K.S., Gaasterland, T., Gariboldi, M., Gissi, C., Godzik, A., Gough, J., Grimmond, S.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Komno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genome Res. 10 (10), 1617-1630 (2000)
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High-efficiency full-length cDNA
Meth. Enzymol. 303, 19-44 (1999)
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Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia;
Sciurognathi; Muroidea; Muridae; Murinae; Mus.
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4089 bp mRNA linear HTC 21-SEP-1
Mus musculus NOD-derived CD11c +ve dendritic cells cDNA, RIKEN
full-length enriched library, clone:F630047M06 product:enhancer
zeste homolog 1 (Drosophila), full insert sequence.
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Ambesi-Impionbato, A., Apweiler, R., Aturallya, R.N., Balley, T.L., Ambesi-Impionbato, A., Apweiler, R., Aturallya, R.N., Balley, T.L., Chiu, K.P., Choudhary, V., Christoffels, A., Clutterbuck, D.R., Chalk, A.M., Chit, K.P., Choudhary, V., Christoffels, A., Clutterbuck, D.R., Challa, B., Dalrymple, B.P., de Bono, B., Della Gatta, G., di Bernardo, D., Down, T., Engstrom, P., Fagiolini, M., Faulkner, G., Fletcher, C.F., Fukushima, T., Furuno, M., Futaki, S., Garrboldi, M., Georgii-Hemming, P., Gingeras, T.R., Gojobori, T., Green, R.B., Glustincich, S., Harbers, M., Haysshi, Y., Hensch, T.K., Hirokawa, N., Hill, D., Huminiecki, L., Iacono, M., Iko, K., Iwama, A., Ishikawa, T., Jaki, M., Kangapin, A., Katoh, M., Kawasawa, Y., Kalso, J., Kitamura, H., Kitano, H., Kollias, G., Krishnan, S.P., Kruger, A., Kummerfeld, S.K., Kurochkin, I.V., Lareau, L.F., Lazarevic, D., Lipovich, L., Liu, J., Liuni, S., McWillias, G., Krishnan, S.P., Kruger, A., Kummerfeld, S.K., Kurochkin, I.V., Lareau, L.F., Lazarevic, D., Lipovich, L., Liu, J., Liuni, S., McWillias, G., Krishnan, S.P., Kruger, A., Kummerfeld, S.K., Kurochkin, I.V., Lareau, L.F., Lazarevic, D., Lipovich, L., Liu, J., Liuni, S., McWillias, M., Madera, M., Maksuchi, H., Matsuzawa, S., Mdider, N., Nakano, N., Nakauchi, H., Ng, P., Nilsson, R., Nishiguchi, S., Nishikawa, S., Nori, F., Ohara, O., Okazaki, Y., Orlando, V., Pang, K.C., Pavan, W.J., Pavesi, G., Pesole, G., Petrovsky, N., Plazza, S., Reed, J., Reid, J.F., Chara, O., Schneider, C., Schobach, C., Sckiguchi, K., Sample, C.A., Seno, S., Schneider, C., Schobach, C., Sckiguchi, K., Semple, C.A., Seno, S., Schneider, C., Schobach, C., Sckiguchi, K., Samalain, A., Sulva, D., Sirolair, B., Sperling, S., Stupka, E., Sugtura, K., Sulva, D., Stara, C., Pavan, M., S., Tang, S., Tang, S., Tang, S., Tang, S., Tang, S., Tang, S., Tang, S., Tang, S., Tang, S., Tang, S., Tang, S., Tang, S., Tang, S., Tang, S., Tang, S., Tang, S., Tang, S., Tang, S., Tang, M., Nakana, K., Shiraki, T., Suzuki, S., Tagami, M., Waki, K., Waki, K., 
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Katayama,S., Tomaru,Y., Kasukawa,T., Waki,K., Nakanishi,M., Nakaniwa,M., Nishida,H., Yap,C.C., Suzuki,M., Kawai,J., Suzuki,H. Carninci,P., Hayashizaki,Y., Walls,C., Frith,M., Ravasi,T., Pang,K.C., Hallinan,J., Mattick,J., Hume,D.A., Lipovich,L., Batalov,S., Engstrom,P.G., Mizuno,Y., Faghihi,M.A., Sandelin,A., Chalk,A.M., Mottagui-Tabar,S., Liang,Z., Lenhard,B. and Wahlestedt,C.
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AlaAspGluValLysSerMetPheSerSerAsnArgGlnLysIleLeuGluArgThrGlu

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Tissues were provided by Dr. John Todd (Dept. of Medical Genetics Tissues were provided by Dr. John Todd (Dept. of Medical Genetics Wellcome Trust Centre for Molecular Mechanisms in Disease Wellcome Trust/MRC building Addenbrookes Hospital Cambridge) whose assistance we gratefully acknowledge.
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Arakawa,T., Carninci,P., Fukuda,S., Hashizume,W., Hayashida,K.,
Hori,F., Iida,J., Imamura,K., Imotani,K., Itoh,M., Kanagawa,S.,
Kawai,J., Kojima,M., Konno,H., Murata,M., Nakamura,M., Ninomiya,N.,
Nishiyori,H., Nomura,K., Ohno,M., Sakazume,N., Sano,H., Sasaki,D.,
Shibata,K., Shiraki,T., Tagami,M., Tagami,Y., Waki,K., Watahiki,A.,
Muramatsu,M. and Hayashizaki,Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           URL:http://genome.gsc.riken.jp/
URL:http://fantom.gsc.riken.jp/.
Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa, 230-0045, Japan (E-mail:genome-res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/, Tel:81-45-503-9222, Fax:81-45-503-9216)
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Antisense transcription in the mammalian transcriptome
Science 309 (5740), 1564-1566 (2005)
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/db_xref="GI:74181972"
/db_xref="GI:74181972"
/tabsaton="prakdiaspetskcitywkrkyksbymrlrolkrloanmgakal
/tabsbaton="prakdiaspetskcityopropmkeysghpelkkclibsi:pepedsodmlm
yvanpakyobktolindemkclrvopropmkeysghpelkkclibsi:pepedsodmlm
rslntyalvpimysmsploqmyrdbetylckipymgdeykbedset:pirelinnydgk
rslntyalvpimysmsploqmyrbetydalayoysberbodkindpsodskoddsokrdlpyvrk
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/mol_type="mRNA"
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/clone="F630047M06"
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e_lib="RIKEN full-length enriched mouse cDNA library"
(1-4089)
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1091 GAACCGTGTGGCACAGACTGCTTCTTTGCTGGAAGGAGCAAAGGAGTACGCC 1144 338 LeuThralaGluArgIleLysThrProProLysArgProGlyGlyArgArgArgArg357 1145ATGCTGCACAACCCTCGGTCCAAGTGCTCTGGGCCCGCCGAAGG 1192 358 LeuProAsnAsnSerSerArgProSerThrProThrIleAsnValLeuGluSerLys 376	LeuHisSerPheHisThrLeuPheCysArgArgCysPheLysTyrAspCysPheLeuHis	218 PheProSerAspLy8IlePheGluAlaIleSerSerMetPheProAspLy8GlyThrAla 237	GTGTTTCTGGAGCTGGTGGATGCCCTCAACCAGTACTCTGATGAGGAGGAGGACGGCAC	MetGlyAspGluValLeuAspGlnAspGlyThrPheIleGluGluLeuIleLysAsnTyr	203 AATATGGGAGCTAAGGCTCTGTATGTGGCAAATTTTGCAAAAGTTCAAGAAAAAACCCAA 262 55 IleLeuAsnGlnGluTrpLysGlnArgArgIleGlnProValHisIleLeuThrSerVal 74
Qy 688 ASNHISSETVALASNPYOASNCYSTYYALALYSVALMETMETVALASNGLYASPHISAYG 707	Oy 628	1805 588 1865 608	Db 1625 CTGAÁGAÁAGÁTAACAATTCTACACAAGTGTATÁACTÁCCÁACCCAGAC 168- Qy 528 GlnProCysAspSerSerCysProCysValileAlaGlnAsnPheCysGluLysPheCys 547 ::: ::: :::::	Qy 468 GlupheArgValLysGluSerSerIleIleAlaProAlaProAlaGluAspValAspThr	Qy 397 GluGluGluLysLysAspGluThrSerSerSerGluAlaAsnSerArgCysGlnThr 416

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Okazaki, Y., Furuno, M., Kasukawa, T., Adachi, J., Bono, H., Kondo, S., Mikaido, I., Osato, N., Saito, R., Suzuki, H., Yamanaka, I., Kiyosawa, H., Yagi, K., Tomaru, Y., Hasegawa, Y., Nogami, A., Schonbach, C., Gojobori, T., Baldarelli, R., Hill, D.P., Bult, C., Hume, D.A., Quackenbush, J., Schriml, L.M., Kanapin, A., Matsuda, H., Batalov, S., Beisel, K.W., Blake, J.A., Bradt, D., Brusic, V., Chothia, C., Corbani, L.E., Cousins, S., Dalla, B., Dragani, T.A., Fletcher, C.F., Forrest, A., Frazer, K.S., Gaasterland, T., Gariboldi, M., Gissi, C., Godzik, A., Gough, J., Grimmond, S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Korno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A., Yamamoto, R., Matsumoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Pujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, B., Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramateu, M., Inoue, Y., Kira, A., and Hayashizaki, Y., RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer 10,111 172,71771 (2000)
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                                                                                                                                                                                                                                                                                                                                                                                   Functional annotation or a ruit-1
Nature 409 (6821), 685-690 (2001)
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High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
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Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia;
Sciurognathi; Muroidea; Muridae; Murinae; Mus.
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REFERENCE AUTHORS

Katayama, S., Tomaru, Y., Kasukawa, T., Waki, K., Nakanishi, M., Nakamura, M., Nishida, H., Yap, C.C., Suzuki, M., Kawai, J., Suzuki, H. Carminci, P., Hayashizaki, Y., Wells, C., Frith, M., Ravasi, T., Pang, K.C., Hallinan, J., Mattick, J., Hume, D.A., Lipovich, L., Batalov, S., Engstrom, P.G., Mizuno, Y., Faghihi, M.A., Sandelin, A., Chalk, A.M., Mottagui-Tabar, S., Liang, Z., Lenhard, B. and

Suzuki, H.,

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CONSRIM TITLE JOURNAL

Carninci, P., Kasukawa, T., Katayama, S., Gough, J., Frith, M.C., Macda, N., Oyama, R., Ravasi, T., Lenhard, B., Wells, C., Kodzius, R., Shimokawa, K., Bajic, V. B., Brenner, S.E., Batalov, S., Forrest, A.R., Zavolan, M., Davis, M.J., Wilming, L.G., Aidinis, V., Allen, J.E., Ambesi-Impiombato, A., Apweiler, R., Aturaliya, R.N., Bailey, T.L., Bansal, M., Baxter, L., Beisel, K. M., Bersano, T., Bono, H., Chalk, A.M., Chiu, K.P., Choudhary, V., Christoffels, A., Clutterbuck, D.R., Chiu, K.P., Choudhary, V., Christoffels, A., Clutterbuck, D.R., Pletcher, C.F., Pukushima, T., Trurno, M., Futaki, S., Gariboldi, M., Georgii-Hemming, P., Gingeras, T.R., Gojobori, T., Green, R.E., Gersin, R., Kalli, J., Kitano, H., Kollis, G., Krishnan, S.P., Kruger, A., Kummerfeld, S.K., Kitano, H., Kollis, G., Krishnan, S.P., Kruger, A., Kummerfeld, S.K., Kurochkin, I. V., Larceu, L.F., Lazarevic, D., Lipovich, L., Liu, J., Liuni, S., Medilliam, S., Mishiguchi, S., Miki, H., Mignone, F., Myake, S., Mori, S., Mishiguchi, S., Makano, N., Nakano, N. Gustincich, S., Hirokawa, N., Jackson, I.J., Jarvis, B.D., Kanai, A., Kawaji, H., Kawasawa, Y., Kedzierski, R.M., King, B.L., Konagaya, A., Kurochkin, I.V., Lee, Y., Lenhard, B., Lyons, P.A., Maglott, D.R., Maltais, L., Marchionni, L., McKenzie, L., Miki, H., Nagashima, T., Mumata, K., Okido, T., Pavan, W.J., Pertea, G., Peeole, G., Petrovsky, N., Pillai, R., Pontius, J.U., Qi, D., Ramachandran, S., Ravasi, T., Reed, J.C., Reed, D.J., Reid, J., Ring, B.Z., Ringwald, M., Sandelin, A., Schneider, C., Semple, C.A., Setou, M., Shimada, K., Sultana, R., Takenaka, Y., Taylor, M.S., Teasdale, R.D., Tomita, M., Verardo, R., Magner, L., Wahlestedt, C., Wang, Y., Watanabe, Y., Verardo, R., Wagner, L., Wahlestedt, C., Wang, Y., Watanabe, Y., Yang, L., Yuan, Z., Zavolan, M., Zhu, Y., Zimmer, A., Carninci, P., Yang, L., Yuan, Z., Zavolan, M., Zhu, Y., Zimmer, A., Carninci, P., Hayatsu, M., Hirozane-Kishikawa, T., Konno, H., Nakamura, M., Sakazume, N., Sato, K., Shiraki, T., Waki, K., Kawai, J., Aizawa, K., Arakawa, T., Fukuda, S., Hara, A., Hashizume, W., Imotani, K., Ishii, Y., Itoh, M., Kagawa, I., Miyazaki, A., Sakai, K., Sasaki, D., Shibata, K., Shinagawa, A., Yasunishi, A., Yoshino, M., Waterston, R., Lander, E.S., Ramanana, C., Sanda, R., Sandai, R., Sa The transcriptional landscape of the mammalian genome Science 309 (5740), 1559-1563 (2005) FANTOM Consortium Analysis of the mouse transcriptome of 60,770 full-length cDNAs Nature 420 (6915), FANTOM Consortium 563-573 (2002) based on functional annotation

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CDNA library was prepared and sequenced in Mouse Genome
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Location/Qualifiers
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Please visit our web site for further details.
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Arakawa,T., Carninci,P., Fukuda,S., Hashizume,W., Hayashida,K.,
Hori,F., Iida,J., Imamura,K., Imotani,K., Itoh,M., Kanagawa,S.,
Kawai,J., Kojima,M., Konno,H., Murata,M., Nakamura,M., Ninomiya,N.,
Kishiyori,H., Nomura,K., Ohno,M., Sakazume,N., Sano,H., Saeaki,D.,
Shibata,K., Shiraki,T., Tagami,M., Tagami,Y., Waki,K., Watahiki,A.,
Muramatsu,M., and Hayashizaki,Y.
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Clone from S. Wiemann, Molecular Genome Analysis, German Cancer Clone from S. Wiemann, Molecular Genome Analysis, German Cancer Research Center (DKFZ); Email s.wiemann@dkfz.heidelberg.de; Bequenced by EMFZ (Biomedical Research Center at the Heinrich-Heinre-University, Duesseldorf/Germany) within the cDNA sequencing consortium of the German Genome Project. This clone (DKFZp469N1815) is available at the RZPD Deutsches (DKFZp469N1815) is available at the RZPD Deutsches (PKFZp469N1815) is availa
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Pongo pygmaeus mRNA; cDNA DKFZp469N1815 (from clone DKFZp469N1815).
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1 (bases 1 to 4643)

Koehrer,K., Beyer,A., Mewes,H.W., Fobo,G., Han, M. and Wiemann,S.

The German cDNA Consortium

Direct Submission
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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ATCCTCAATGAAGAATGGAAGCTTCGTGTCCAACCTGTTCAGTCAATGAAGCCTGTG
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         LeuThrAlaGluArgIleLysThrProProLysArgProGlyGlyArgArgArgGlyArg
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TCAACAACTTCTGTTCAATAGCCAGGCTTCTGGGGACCAAGACGTGCAAGCAGGTCTTT 152
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                                                                                                                                                                                                                                                     GluGluGluLysLysAspGluThrSerSerSerSerGluAlaAsnSerArgCysGlnThr 416
                                                                  GlnAspGluAlaAspArgArgGlyLysValTyrAspLysTyrMetCysSerPheLeuPhe
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                                                                                                                                                                                         ThrLysGlnCysProCysTyrLeuAlaValArgGluCysAspProAspLeuCysLeuThr 587
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       ArgGlySerLysLysHisLeuLeuLeuAlaProSerAspValAlaGlyTrpGlyIlePhe
                                                                                                                                                                                                                        CAGTGCAACCCAGACTGTCAGAATCGTTTCCCTGGCTGTCGCTGTAAGACCCCAGTGCAAT
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               AsnHisSerValAsnProAsnCysTyrAlaLysValMetMetValAsnGlyAspHisArg 707
                                     AACCTTAATAATGATTTTGTAGTGGATGCTACTCGGAAAGGAAACAAAATTCGATTTGCA
                                            AsnLeuAsnAsnAspPheValValAspAlaThrArgLysGlyAsnLysIleArgPheAla 687
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rpArgLysJ :::::::::::::::::::::::::::::::::::	8.11e-218 2462.50 71.9% ty: 61.6% 60.8%		Adams, M.D. and Cargill, M. Direct Submission Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive, Rockville, MD 20850, USA This sequence was made by sequencing genomic exons and ordering them based on alignment. Location/Qualifiers	gene trios Science 302 (5652), 1960-1963 (2003) 14671302 2 (bases 1 to 2215) Clark,A.G., Glanowski,S., Nielson,R., Thomas,P., Kejariwal,A., Todd,M.A., Tanenbaum,D.M., Civello,D.R., Lu,F., Murphy,B., Ferriera,S., Wang,G., Zheng,X.H., White,T.J., Sninsky,J.J.,	Mammalia; Butheria; Buarchontoglires; Glires; Rodentia; Sciurognathi; Muroidea; Muridae; Murinae; Mus. 1 (bases 1 to 2215) Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M. Inferring nonneutral evolution from human-chimp-mouse orthologous	AY402398 AY402398 AY402398 Mus musculus EZH1 gene, VIRTUAL TRANSCRIPT, partial sequence, genomic survey sequence. AY402398 AY402398.1 GI:39758384 GSS. Mus musculus (house mouse) Mus musculus (house mouse) Mus musculus (house mouse) Mus musculus (house mouse)	708 IleGlyIlePheAlaLysArgAlaIleGlmThrGlyGluGluLeuPhePheAspTyrArg 727
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                                                                      aLeuLysTyrValGlyIleGluArgGluMetGluIle 745
                                                                                                                                                                 CAACTGTTATGCCAAAGTGGTTATGGTGAATGGAGATCACCGCATTGGGATCTTTGCCAA
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1 (bases 1 to 2244)

1 (bases 1 to 2244)

1 (clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Todd, M.A., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.

Inferring nonneutral evolution from human-chimp-mouse orthologous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens EZH1 gene, genomic survey sequence AY402396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (16-NOV-2003) Celera Genomics, Rockville, MD 20850, USA
This sequence was made by sequencing genother based on alignment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.
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Science 302 (5652), 1960-1963 (2003)
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                   TCCCCTCTCCAACAGAACTTTATGGTAGAAGATGAGACGGTTTTGTGCAATATTCCCCTAC
                                   SerProLeuGlnGlnAsnPheMetValGluAspGluThrValLeuHisAsnIleProTyr
                                                                      CAACATATGTTAATGAGGTCACTGAACACAGTTGCATTGGTTCCCATCATGTATTCCTGG
                                                                                       GlnValIleProLeuLysThrLeuAsnAlaValAlaSerValProIleMetTyrSerTrp
                                                                                                                             {\tt GluileLeuAsnGlnGluTrpLysGlnArgArgIleGlnProValHisIleLeuThrSer}
                                                                                                                                                                                                                                                             {\tt ArgAlaAspGluValLysSerMetPheSerSerAsnArgGlnLysIleLeuGluArgThr}
                                                                                                                                                                                                                                                                                          TrpArgLysArgValLysSerGluTyrMetArgLeuArgGlnLeuLysArgPheArg---
                                                                                                                                                       ValSerSerLeuArgGlyThrArgGluCysSerValThrSerAspLeuAspPheProThr
                                                                                                                                                                                (bases 1 to 2244)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /gene="EZH1"
/locus_tag="HCM1210"
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72.3%
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                                                                                                               ProlletysMettysProAsnIleGluProPro-----
                                                                                                                                                 GluGluGluLysLysAspGluThrSerSerSerGluAlaAsnSerArgCysGlnThr
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                   TCAACAACTTCTGTTCAATAGCCAGGCTTCTGGGGACCAAGACGTGCAAGCAGGTCTTT
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RESULT 10 AY402397 LOCUS ACCESSION VERSION KEYWORDS DEFINITION

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> N Pan troglodytes EZH1 gen genomic survey sequence. AY402397 AY402397.1 GI:39758383 GSS. AY402397 Pan trogi Pan troglodytes Pan troglodytes 2183 bp EZH1 gene, VIRTUAL (chimpanzee) DNA linear GSS 15-DEC-2003 TRANSCRIPT, partial sequence,

Eukaryota; Metazoa; Mammalia; Eutheria; Hominidae; Pan.

Chordata; Craniata; Vertebrata; Euteleostomi; Euarchontoglires; Primates; Catarrhini;

1 (bases 1 to 2183)
Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.

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Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Trodd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.
Direct Submission
Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive, Rockville, MD 20850, USA
This sequence was made by sequencing genomic exons and ordering
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Science 302 (5652),
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/mol_type="genomic DNA"
/db_xref="taxon:9598"
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                                                                                 AlaGlnAsnPheCysGluLysPheCysGlnCysSerSerGluCysGlnAsnArgPhePro
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          TCTGATGTCGCCGGATGGGGCACCTTCATAAAGGAGTCTGTGCAGAAGAACGAATTCATT
                     SerAspValAlaGlyTrpGlyIlePheIleLysAspProValGlnLysAsnGluPheIle
                                                        ValSerCysLysAsnCysSerIleGlnArgGlySerLysLysHisLeuLeuLeuAlaPro
                                                                                                                      GGCTGTCGCTGTAAGACCCAGTGCAATACCAAGCAATGTCCTTGCTATCTGGCAGTGCGA
                                                                                                                                   GlyCysArgCysLysAlaGlnCysAsnThrLysGlnCysProCysTyrLeuAlaValArg
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Kawai,J., Shinagawa,A., Shibata,K., Yoshino,M., Itoh,M., Ishii,Y., Arakawa,T., Hara,A., Fukunishi,Y., Konno,H., Adachi,J., Fukuda,S., Aizawa,K., Izawa,M., Nishi,K., Kiyosawa,H., Kondo,S., Yamanaka,I., Saito,T., Okazaki,Y., Gojobori,T., Bono,H., Kasukawa,T., Saito,R., Saito,T., Okazaki,Y., Gojobori,T., Bono,H., Kasukawa,T., Saito,R., Kadota,K., Matsuda,H., Ashburner,M., Batalov,S., Casavant,T., Fleischmann,W., Gaasterland,T., Gissi,C., King,B., Kochiwa,H., Kuchl,P., Lewis,S., Matsudo,T., Kixaido,I., Pesole,G., Quackenbush,J., Schriml,L.M., Staubli,F., Suzuki,R., Tomita,M., Wagner,L., Washio,T., Sakai,K., Okido,T., Furuno,M., Aono,H., Baldarelli,R., Barsh,G., Blake,J., Boffelli,D., Bojunga,N., Carninci,P., de Bonaldo,M.F., Brownstein,M.J., Bult,C., Fletcher,C., Fujita,M., Gariboldi,M., Gustincich,S., Hill,D., Hofmann,M., Hume,D.A., Kamiya,M., Lee,N.H., Lyons,P., Nordone,P.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Shibata,K., Itoh,M., Aizawa,K., Nagaoka,S., Sasaki,N., Carninci,P., Konno,H., Akiyama,J., Nishi,K., Kitsunai,T., Tashiro,H., Itoh,M., Sumi,N., Ishii,Y., Nakamura,S., Hazama,M., Nishine,T., Harada,A., Yamamoto,R., Matsumoto,H., Sakaguchi,S., Ikegami,T., Kashiwagi,K., Pujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,B., Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura,S., Kawai,J., Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and Hayashizaki,Y., RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer genome Res. 10 (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes Genome Res. 10 (10), 1617-1630 (2000)
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2142 bp mRNA linear HTC 21-SEP-2005 Mus musculus adult male aorta and vein cDNA, RIKEN full-length enriched library, clone:A530023C07 product:enhancer of zeste homolog 1 (Drosophila), full insert sequence.
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High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
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The transcriptional landscape of the mammalian genome Science 309 (5740), 1559-1563 (2005)
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Encyclopedia Project of Genome Exploration Research Group in Ri
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Please visit our web site for further details.
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PCGTDCFLLLEGAKBYAMLHNPRSKCSGRRRRRHPVVSASCSNASASAMAETKEGDSD RDTGNDWASSSSEANSRCQTPTKQKASPAPAQLCVVEAPSEPVEWTGAEESLFRVFHG TYFNNFCSIARLLGTKTCKQVFQPAVKESLILKLPTDELMNPAQKKKRKHRLWAAHCR

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LeuHisSerPheHisThrLeuPheCysArgArgCysPheLysTyrAspCysPheLeuHis
                                                                                                 ProGluCysThrProAsnIleAspGlyProAsnAlaLysSerValGlnArgGluGlnSer
                                                                                                                                                                           GluGluLeuLysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuPro
                                                                                                                                                                                                                                                            PheProSerAspLysIlePheGluAlaIleSerSerMetPheProAspLysGlyThrAla
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TTCAACAACTTCTGCTCAATAGCCAGGCTTCTGGGGACAAGACATGCAAGCAGGTCTTT
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             IleLysAspProValGlnLysAsnGluPheIleSerGluTyrCysGlyGluIleIleSer 647
                                                          ArgGlySerLysLysHisLeuLeuLeuAlaProSerAspValAlaGlyTrpGlyIlePhe
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ATCAAGGAGTCTGTGCAGAAGAATGAATTCATTTCTGAATATTGTGGTGAGCTCATCTCT
                                                                                                                                                           ThrLysGlnCysProCysTyrLeuAlaValArgGluCysAspProAspLeuCysLeuThr
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                             RIKEN Genome Exploration Research Group
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AK153835.1 GI:74150295
HTC; CAP trapper.
Mus musculus (house mouse)
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Okazaki,Y.,
                                                                                                             Functional
                                                                                                                                      FANTOM Consortium
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ency full-length cDNA
ol. 303, 19-44 (1999)
  Furuno,
  Kasukawa, T.,
                                                                                full-length (2001)
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Adachi, J.,
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Suzuki, H.,

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RS. Carninci, P., Kasukawa, T., Katayama, S., Gough, J., Frith, M.C., Maeda, N., Oyama, R., Ravusi, T., Lenhard, B., Wells, C., Kodzius, R., Shimokawa, K., Bajic, V. B., Brenner, S.E., Batalov, S., Forrest, A.R., Zavolan, M., Davis, M.J., Wilming, L.G., Aidinis, V., Allen, J.E., Ambesi-Implombato, A., Apweiler, R., Aturaliya, R.N., Bailey, T.L., Bansal, M., Baxter, L., Baisel, K. M., Ersano, T., Bono, H., Chalk, A.M., Crow, M.L., Dalla, E., Dalrymple, B.P., de Bono, B., Della Gatta, G., di Bernardo, D., Down, T., Engstrom, P., Pagiolini, M., Faulkner, G., Pletcher, C.F., Fukushima, T., Furuno, M., Futaki, S., Gariboldi, M., Georgii-Hemming, P., Gingeras, T.R., Gojobori, T., Green, R.E., Georgii-Hemming, P., Gingeras, T.R., Gojobori, T., Green, R.E., Gustincich, S., Harbers, M., Hayashi, Y., Hensch, T.K., Hirokawa, N., Hill, D., Huminiecki, L., Iacono, M., Ikeo, K., Iwama, A., Ishikawa, T., Jakt, M., Kanapin, A., Katoh, M., Kawasawa, Y., Kelso, J., Kitamura, H., Kitano, H., Kollias, G., Krishnan, S.P., Kruger, A., Kummerfeld, S.K., Kitano, H., Mateuzawa, S., Madan Babu, M., Madera, M., Marchiomni, L., Liuni, S., McWilliam, S., McWilliam, S., McWilliam, S., McWilliam, S., McWilliam, S., McWilliam, S., McWilliam, S., McWilliam, S., McWilliam, S., McWilliam, S., Madan, W., Nakano, N., Nakauchi, H., Mgnone, F., Miyake, S., Matsuda, H., Misson, R., Nishiguchi, S., Nishikawa, S., Nori, F., Ohara, O., Okazaki, Y., Orlando, V., Panza, S., Red, J., Radd, J.F., Ring, B.Z., Peeole, G., Petrovsky, N., Piazza, S., Red, J., Radd, J.F., Ring, B.Z., Fingher, J., Shibata, Y., Shimada, H., Shimada, K., Silva, D., Sensa, L., Sheng, Y., Shibata, K., Shimada, H., Shimada, K., Silva, D., Sensa, L., Sheng, Y., Shibata, K., Shimada, H., Shimada, K., Silva, D., Sensa, L., Sheng, Y., Shibata, K., Tan, S.L., Tang, S., Tang, S., Taylor, M.S., Tanger, J., Tang, S., Taylor, M.S., Taylor, M.S., Shimada, K., Shimada, K., Shimada, K., Shimada, K., Shimada, K., Shimada, K., Shimada, K., Shimada, K., Shimada, K., Shimada, K., Shimada, K., Shimada
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Kiyosawa, H., Yagi, K., Tomaru, Y., Hasegawa, Y., Nogami, A.,
Schombach, C., Gojobori, T., Baldarelli, R., Kanapin, A., Matsuda, H.,
Hume, D.A., Quackenbush, J., Schriml, L.M., Kanapin, A., Matsuda, H.,
Batalov, S., Beisel, K.W., Blake, J.A., Bradt, D., Brusic, V.,
Chothia, C., Corbani, L.E., Cousins, S., Dalla, E., Dragani, T.A.,
Fletcher, C.F., Forrest, A., Frazer, K.S., Gasterland, T.,
Gariboldi, M., Gissi, C., Godzik, A., Gough, J., Grimmond, S.,
Gustincich, S., Hirokawa, N., Jackson, I.J., Jarvis, E.D., Kanai, A.,
Kawaji, H., Kawasawa, Y., Kedzierski, R.M., King, B.L., Konagaya, A.,
Kurochkin, I.V., Lee, Y., Lenhard, B., Lyons, P.A., Maglott, D.R.,
Maltais, L., Marchionni, L., McKenzie, L., Miki, H., Nagashima, T.,
Numata, K., Okido, T., Pavan, W.J., Pertea, G., Pesole, G.,
Petroysky, N., Pillai, R., Pontius, J.U., Qi, D., Ramachandran, S.,
Ravasi, T., Reed, J.C., Reed, D.J., Reid, J., Ring, B.Z., Ringwald, M.,
Sultana, R., Takenaka, Y., Taylor, M.S., Teasdale, R.D., Tomita, M.,
Sultana, R., Takenaka, Y., Taylor, M.S., Teasdale, R.D., Tomita, M.,
Yang, L., Yuan, Z., Zavolan, M., Zhu, Y., Zimmer, A., Carninci, P.,
Yang, L., Yuan, Z., Zavolan, M., Zhu, Y., Zimmer, A., Carninci, P.,
Yang, L., Yuan, Z., Zavolan, M., Shinada, K., Sakai, K., Kawai, J., Alzawa, K.,
Sakazume, M., Sato, K., Shiraki, T., Waki, K., Kawai, J., Alzawa, K.,
Shinagawa, I., Miyazaki, A., Sakai, K., Sasaki, D., Shibata, K.,
Shinagawa, J., Wasaki, A., Sakai, K., Sasaki, D., Shibata, K.,
Takin, J., Sakai, Y., Jander, E.S.,
Takanon, Consortium
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                                   The transcriptional landscape of the Science 309 (5740), 1559-1563 (2005)
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Hori, F., Iida, J., Imamura, K., Imotani, K., Itoh, M., Kanagawa, S.,

Kawai, J., Kojina, M., Konno, H., Murata, M., Nakamura, M., Ninomiya, N.,

Nishiyori, H., Nomura, K., Ohno, M., Sakazume, N., Sano, H., Sasaki, D.,

Nishiyori, H., Nomura, K., Ohno, M., Sakazume, N., Sano, H., Sasaki, D.,

Nishiyori, H., Nomura, K., Ohno, M., Sakazume, N., Sano, H., Sasaki, D.,

Nishibata, K., Shiraki, T., Tagami, M., Tagami, Y., Waki, K., Watahiki, A.,

Muramateu, M., and Hayashizaki, Y.

Direct Submission

Submitted (30-MAR-2004) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome

Exploration Research Group, RIKEN Genomic Sciences Center (GSC),

RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa, 230-0045, Japan (E-mail:genome-res@gc.riken.jp,

VRL:http://genome.gsc.riken.jp/, Tel:81-45-503-9222,

Fax:81-45-503-9216)

CDNA library was prepared and sequenced in Mouse Genome

Encyclopedia Project of Genome Exploration Research Group in Riken

Genomic Sciences Center and Genome Science Laboratory in RIKEN.

Division of Experimental Animal Research in Riken contributed to
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Please visit our web site for further details.
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URL:http://fantom.gsc.riken.jp/.
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AVASVPIMYSMSPLQQMFMYBDETVILMIP YMGDEVLQQQTFT EELI KNYDGFKYKGD
RECGFINDEIFVELVNALGQYNDDDDDDDDDBREEEKQKDLEDNRDLGETCPFKYF
PADKIFEAISSMFPDKGTAEELKEKYKELTEQQLPGALPPECTPNIDGPNAKSVQREQ
SLHSFHTLFCKRCFKYDCFLHPFHATENTYKKNYTETALDNRDCGPQCYGHLEGAKEF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /tissue type="thymus"
/clone lib="RIKEN full-length enriched mouse cDNA library"
/dev stage="2 days neonate"
56. .>1238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="unnamed protein product; enhancer of zeste homolog (Drosophila) (MGD|MGI:107940 GB|NM_007971, evidence:
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/mol_type="mRNA"
/strain="C57BL/6J"
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360	ArgIleLy8ThrProProLy8ArgProGlyGlyArgArgArgGlyArgLeuProAsn
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340	21 GlyProGlnCysTyrGlnHisLeuGluGlyAlaLysGluPheAlaAlaAlaLeuThrAla
1085	
320	01 AlaThiProAsnThiTyrLysAtgLysAsnThiGluThiAlaLeuAspAsnLysProCys
1025	
300	81 PheHisThrLeuPheCysArgArgCysPheLysTyrAspCysPheLeuHisProPheHis
280 905	61 ThrProAsnIleAspGlyProAsnAlaLysSerValGlnArgGluGlnSerLeuHisSer
260 845	241 LysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuProProGluCys
240	221 ASPLYSI1ePheGluAlaI1eSerSerMetPheProASPLYSG1YThrAlaGluGluLeu
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180	61 ArgGluCysGlyPheileAsnAspGluIlePheValGluLeuValAsnAlaLeuGlyGln
160	141 GlnAspGlyThrPheIleGluGluLeuIleLysAsnTyrAspGlyLysValHisGlyAsp
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425	
100 365	81 ArgGluC 06 AGGGAGT
80	61 LysGlnArgArgIleGlnDroValHisIleLeuThrSerValSerSerLeuArgGlyThr
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40	21 SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArgAlaAspGluValLysSer
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Kuehl, P., Lewis, S., Mateuo, Y., Nikaido, I., Pesole, G.,
Quackenbush, J., Schriml, L.M., Staubli, P., Suzuki, R., Tomita, M.,
Wagner, L., Washio, T., Sakai, K., Okido, T., Furuno, M., Aono, H.,
Baldarelli, R., Barsh, G., Blake, J., Boffelli, D., Bojunga, N.,
Carninci, P., de Bonaldo, M.F., Brownstein, M.J., Bult, C.,
Fletcher, C., Fujita, M., Gariboldi, M., Gustincich, S., Hill, D.,
Fletcher, C., Fujita, M., Gariboldi, M., Gustincich, S., Hill, D.,
Hofmann, M., Hume, D. A., Kamiya, M., Lee, N. H., Lyons, P.,
Hofmann, M., Hume, D. A., Kamiya, M., Lee, N. H., Lyons, P.,
Marchionni, L., Mashima, J., Mazzarelli, J., Mombaerts, P., Nordone, P.,
Ring, B., Ringwald, M., Rodriguez, I., Sakamoto, N., Sasaki, H.,
Sato, K., Schonbach, C., Seya, T., Shibata, Y., Storch, K.F., Suzuki, H.,
Toyo-oka, K., Wang, K. H., Weitz, C., Whittaker, C., Wilming, L.,
Wynshaw-Boris, A., Yoshida, K., Hasegawa, Y., Kawaji, H., Kohtsuki, S.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Konno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A., Yamamoto, R., Matsunoto, H., Sakāguchi, S., Ikegami, T., Kashiwagi, K., Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, B., Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y. RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer Genome Res. 10 (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Kawai, J., Shinagawa, A., Shibata, K., Yoshino, M., Itoh, M., Ishii, Y., Arakawa, T., Hara, A., Fukunishi, Y., Konno, H., Adachi, J., Fukuda, S., Aizawa, K., Izawa, M., Nishi, K., Kiyosawa, H., Kondo, S., Yamanaka, I., Saito, T., Okazaki, Y., Gojobori, T., Bono, H., Kasukawa, T., Saito, R., Kadota, K., Matsuda, H., Ashburner, M., Batalov, S., Casavant, T., Kasukawa, T., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R., Kasukawa, T., Saito, R.
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Okazaki,Y.,
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High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
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Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia;
Sciurognathi; Muroidea; Muridae; Murinae; Mus.
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Furuno, M., Kasukawa, T., Adachi, J., Bono, H., Kondo, S.,
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CONSRIM TITLE JOURNAL PUBMED

> Percent Similarity: Best Local Similarity:

1645.50 68.5% 52.1% 40.6%

Conservative: Mismatches: Indels:

Matches:

Score:

Alignment Scores: Pred. No.:

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PUBMED REFERENCE AUTHORS

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Submitted (14-APR-2004) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Supploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa, 230-0045, Japan (S-mailgenome-resegsc.riken.jp, Tel:81-45-503-9222, Pax:81-45-503-9216)
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Antisense transcription in the mammalian transcriptome
Science 309 (5740), 1564-1566 (2005)
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Encyclopedia Project of Genome Exploration Research Group in Riken
Genomic Sciences Center and Genome Science Laboratory in RIKEN.
Division of Experimental Animal Research in Riken contributed to
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URL:http://fantom.gsc.riken.jp/.
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Please visit our web site for further details.
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RDTGNDWASSSSEANSRCQTPTKQKASPAPAQLCVVEAPSEPVEWTGAEESLFRVFHG
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KRHAI EGNKKSSKKQF PNDMI FSAI ASMF PENGVPDDMKERY RELTEMSD PNAL PPQC
TPNI DGPNAKSVQREQSLHSFHTL FCRRCFKY DCFLHPFHAT PNVYKRKNKE IKI EPE
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1 (Drosophila) (MGD|MGI:1097695 GB|U60453, evidence:
BLASTN, 99%, match=1770)
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GAACCGTGTGGCACAGACTGCTTTTCCTTGGAAGGAGCAAAGGAGTACGCC-----
                                                                                                                                                      CGGAAGCGCCATGCTATCGAAGGCAACAAA-----AAGAGTTCCAAG-----AAAACAG
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            LeuThrAlaGluArgIleLysThrProProLysArgProGlyGlyArgArgArgArgGlyArg
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               AK045374

Mus musculus adult male corpora quadrigemina cDNA, RIKEN
full-length enriched library, clone:B230110C14 product:enhancer of zeste homolog 1 (Drosophila), full insert sequence.

AK045374

AK045374.1 GI:26337298

HTC; CAP trapper.

Mus musculus (house mouse)

Mus musculus (house mouse)

Mus musculus (brouse)

Sukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia;
Sciurognathi; Muroidea; Muridae; Murinae; Mus.
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TTCAACAACTTCTGCTCAATAGCCAGGCTTCTGGGGACAAAGACATGCAAGCAGGTCTTT 152
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                                                                                        Direct Submission

Submitted (16-UUI-2001) Yoshihide Hayashizaki, The Institute of Submitted (16-UUI-2001) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suchiro-cho, Tsurumi-ku, Yokohama, Kanagawa, 230-0045, Japan (E-mail:genome-res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/, Tel:81-45-803-9212, URL:http://genome.gsc.riken.jp/, Tel:81-45-803-9216)

Fax:81-45-503-9216)

CDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to prepare mouse tissues.

Please visit our web site for further details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Adachi, J., Aizawa, K., Akimura, T., Arakawa, T., Bono, H., Carninci, P. Pukuda, S., Furuno, M., Hanagaki, T., Hara, A., Hashizume, W., Hayashida, K., Hayatsu, N., Hiramoto, K., Hiraoka, T., Hirozane, T., Hori, F., Imoteni, K., Ishii, Y., Itoh, M., Kagawa, I., Kasukawa, T., Koyi, S., Kurihara, C., Matsuyama, T., Kondo, S., Konno, H., Kouda, M., Koya, S., Kurihara, C., Matsuyama, T., Miyazaki, A., Murata, M., Nishi, K., Nomra, K., Numazaki, R., Ohno, M., Ohsato, N., Okazaki, Y., Saito, R., Saitoh, H., Sakai, C., Sakai, K., Sakazume, N., Okazaki, Y., Saito, R., Saitoh, H., Sakai, C., Sakai, K., Sakazume, N., Sano, H., Sasaki, D., Shibata, K., Shinagawa, A., Shiraki, T., Sogabe, Y., Tanaka, T., Tomaru, A., Toya, T., Yasunishi, A., Muramatsu, M., and Hayashizaki, Y.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The FANTOM Consortium, Riken Genome Exploration Research Group Genome Science Group (Genome Network Project Core Group).
The Transcriptional Landscape of the Mammalian Genome Science 309, 1559-1563 (2005)
8 (bases 1 to 3639)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RIKEN Genome Exploration Research Group, Genome Science Group (Genome Network Core Team) and the FANTOM Consortium. Antisense Transcription in the Mammalian Transcriptome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Phase I and II Team.
Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs
Nature 420, 563-573 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FANTOM Consortium.

Functional annotation of a full-length mouse cDNA collection Nature 409, 685-690 (2001)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Science 309, 1564-1566 (2005)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The FANTOM Consortium, the RIKEN Genome Exploration Research Group
URL:http://genome.gsc.riken.jp/
URL:http://fantom.gsc.riken.jp/
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The RIKEN Genome Exploration Research Group Phase II Team and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11076861
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Carninci, P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ohsato, N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 the
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VGLGVPRLFSPAP"
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Db	Q	Ъ	Ø	망	Qy	Дb	Qy	망	ξ	망	Qy	Dр	Qy	DЬ	δ	US-10-773-	DB:	Query Match:	Rest Local Similar	Score:	Fred. No.:
571 GATGGCAAAGT	154 AspGlyLysVa	511 ATGGGTGACGA	134 MetGlyAspGl	451 TCCCCTCTCCA	114 SerProLeuGl	391 CAGGATATGTT	94 GlnValllePr	331 AGTGGGCACCC	75 SerSerLeuAr	271 ATCCTCAATGA	55 IleLeuAsnGl	211 AATATGGGAGC	35 AlaAspGluVa	151 TGGAAAAGAAAAG	15 TrpArgLysAr	US-10-773-302-2 (1-746) x AK045374 (1-3639)	6		11.1		
CCACGGTGAAGAAGA	lHisGlyAspArgGl	GGTGAAGGAAGAAGA	uValLeuAspGlnAs	GCAGAATTTCATGGT	nGlnAsnPheMetVa	GATGCGGTCTCTGAA	oLeuLysThrLeuAs	TTTTCTGAAAAAGTG	gGlyThrArgGluCy	AGAGTGGAAGAAACT	nGluTrpLysGlnAr	AAAGGCTCTGTATGT	llysSerMetPheSe	AGTGAAATCTGAGTA	gValLysSerGluTy	AK045374 (1-36	g.		47.68	č	1
 GATGATCCCTGGAT	u	TGAGACTTTCATCG	pGlyThrPheIleG	GGAAGATGAGACGG	lGluAspGluThrV	.cacrerrecacree	nAlaValAlaSerV	TACCATAGAGAGCA	BSerValThrSerA	regrerecadeere	gArgIleGlnProV	GGCAAATTTTGCAA	rSerAsnArgGlnL	TATGCGGCTTCGAC	rMetArgLeuArgG	39)	Gaps:		Mismatches:		
GATGGCAAAGTCCACGGTGAAGAAGAGATGATCCCTGGATCTGTGCTGATCAGCGATGCT 630	AspGlyLysValHisGlyAspArgGluCysGlyPheIleAsnAspGlu	ATGGGTGACGAGGTGAAGGAAGAAGATGAGACTTTCATCGAAGAGCTGATCAATAACTAT	MetGlyAspGluValLeuAspGlnAspGlyThrPheIleGluGluLeuIleLysAsnTyr	TCCCCTCTCCAGCAGAATTTCATGGTGGAAGATGAGACGGTTTTGTGCAATATTCCATAC	SerProLeuGlnGlnAsnPheMetValGluAspGluThrValLeuHisAsnIleProTyr 133	CAGGATATGTTGATGCGGTCTCTGAACACTGTTGCACTGGTTCCCATCATGTATTCCTGG	GlnValIleProLeuLysThrLeuAsnAlaValAlaSerValProIleMetTyrSerTrp	AGTGGGCACCCTTTTCTGAAAAAGTGTACCATAGAGAGCATTTTCCCCAGGGTTCGACAGC	SerSerLeuArgGlyThrArgGluCysSerValThrSerAspLeuAspPheProThr	ATCCTCAATGAAGAGTGGAAGAAACTTCGTGTCCAGCCTGTTCAGCCAATGAAGCCCGTG	IleLeuAsnGlnGluTrpLysGlnArgArgIleGlnProValHisIleLeuThrSerVal	AATATGGGAGCAAAGGCTCTGTATGTGGCAAATTTTTGCAAAAGGTTCAAGAAAAAACCCAA	AlaAspGluValLysSerMetPheSerSerAsnArgGlnLysIleLeuGluArgThrGlu	TGGAAAAGAAAATCTGAGTATATGCGGCTTCGACAGCTCAAACGGCTCCAGGCA	TrpArgLysArgValLysSerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArg		19	94	167	140	3639
T 630	ո 169	r 570	r 153	5 510	r 133	3 450	0 113	C 390	r 93	330	74	A 270	54	1 210	34						

448 TyrAspAsnPheCysAlaIleAlaArgLeuIleGlyThrLysThrCysArgGlnValTyr 467 ::::: ::	1336 CCCACGAAACAGAAAGCCAGTCCAGCCCCAGCTCAGCTC	GluGluGluLysLysAspGluThrSerSerSerGluAlaAsnSerArgCysGlnThr 4	1153ATGCTGCACAACCCTCGGTCCAAGTGCTCTGGGCGCCGCCGCCGAAGG 1200 358 LeuProAsnAsnSerSerArgProSerThrProThrIleAsnValLeuGluSerLys 376	LysProCysGlyProGlnCysTyrGlnHisLeuGluGlyAlaLysGluPheAlaAlaala:::	278 LeuhisSerPheHisThrLeuPheCysArgArgCysPheLysTyrAspCysPheLeuHis 297	238 GluGluLeuLysCluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuPro 257 :::::::: :::	198 GluLysGlnLysAspLeuGluAspHisArgAspAspLysGluSerArgProProArgLys 217	170 IlePheValGluLeuValAsnAlaLeuGlyGlnTyrAsnAspAspAspAspAspAsp 187 ::: ::: :::
	REFERENCE 1 (Dases 1 to 859) AUTHORS Uenishi,H., Eguchi,T., Suzuki,K., Sawazaki,T., Toki,D., Shinkai,H., Okumura,N., Hamasima,N. and Awata,T. TITLE PEDB (Pig BST Data Explorer): construction of a database for ESTs derived from porcine full-length cDNA libraries JOURNAL Nucleic Acids Res. 32 (1), D484-D488 (2004)	ACCESSION BW974704 VERSION BW974704.1 GI:71959387 VERSION BW974704.1 GI:71959387 KEYWORDS EST. SOURCE Sus scrofa (pig) ORGANISM Sus scrofa Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Sus scrofa Eukaryota; Metazoa; Chordata; Cetartiodactyla; Suina; Suidae;	SULT 15 974704 BW974704 BS9 bp mRNA linear EST 08-AU CUS BW974704 full-length enriched swine cDNA library, adult perip blood mononuclear cell Sus scrofa cDNA clone PBL010097E08 5',	Qy 667 eAsnLeuAsnAsnAspPheValValAspAlaThrArgLysGlyAsnLysIleArgPhe 686 :::	Qy 627 elleLysAspProValGlnLysAsnGluPhelleSerGluTyrCysGlyGluIleIleSe 647	1843 CCTTAGCTGCCGGAGACTTTTAATATCCCTTTGCTGTGCTGCAGGCATCCTACAGGGAG 607 nArgGlySerLysLisLeuLeuLeuAlaProSerAspValAlaGlyTrpGlyIleph	548 GlnCys.	508 LeuLys 1633 CTGAAG 528 GlnPro ::: 1693 CGTCCG

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Low quality bases were trimmed based on the quality values.

Location/Qualifiers
                                                                                                                                                                                                                            GlnAsnPheCysGluLysPheCysGlnCysSerSerGluCysGlnAsnArgPheProGly
                                                                                                                                                                                                                                                                                               ThrLysThrCysArgGlnValTyrGluPheArgValLysGluSerSerIleIleAlaPro
                                                                                                                                                                                                                                                                                                                                                                                                                          MetLysProAsnIleGluProProGluAsnValGluTrpSerGlyAlaGluAlaSerMet
                                                                                   CysAspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAspSerLysAsnVal
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                                                                                                                                                                                                                                                        TATCAGCCCTGCGACCACCCACGGCAGCCTTGCGACAGTTCGTGCCCTTGTGTATTGCA
                                                                                                                                                                                                                                                                    TyrGlnProCysAspHisProArgGlnProCysAspSerSerCysProCysVallleAla
                                                                                                                                                                                                                                                                                                                                                    AlaProAlaGluAspValAspThrProProArgLysLysArgLysHisArgLeuTrp
GluTyrCysGlyGluIleIleSerGlnAspGluAlaAspArgArgGlyLysValTyrAsp
                                                                                                                                                                       TGCCGTTGCAAAGCCCAGTGCAACACGAAGCAGTGCCCGTGTTATCTGGCTGTCCGAGAG
                                                                                                                                                                                 CysArgCysLysAlaGlnCysAsnThrLysGlnCysProCysTyrLeuAlaValArgGlu
                                                                                                                                                                                                                                                                                                                                         GCCCCCACCGAGGATGTGGACACTCCTCCCAGAAAGAAGAAGAAGAACACCGGTTGTGG
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98.6%
39.2%
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Matches:
Conservative:
Mismatches:
Indels:
Gaps:
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Db 842 ATGATGGTTAATGGCGAT 859	Qy 700 MetMetValAsnGlyAsp 705	Db 782 AAGGGTAACAAAATTCGTTTTTGCAAATCACTCAGTAAATCCAAACTGCTATGCAAAAGTG 841	Qy 680 LysGlyAsnLysIleArgPheAlaAsnHisSerValAsnProAsnCysTyrAlaLysVal 699	Db 722 AAATACATGTGCAGCTTTCTCTTCAACTTGAACAATGATTTTGTGGTGGATGCAACCCGC 781	Qy 660 LysTyrMetCysSerPheLeuPheAsnLeuAsnAsnAspPheValValAspAlaThrArg 679
		GTG 84	Val 69:	CGC 78	Arg 67
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Search completed: August 13, 2006, 17:19:32 Job time: 7454.4 secs

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-DEV TIMEOUT=120 -WARN TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
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                                                                                                                                                                                                                                                 Query
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/EMC_Celerra_SIDS3/ptodata/2/ina/5_COMB.seq:*
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INGOMATION:
APPLICANT: Jenuwein, Thomas
APPLICANT: Jenuwein, Donal
APPLICANT: Laible, Gotz
APPLICANT: Laible, Gotz
APPLICANT: Eisenhaber, Frank
APPLICANT: Eisenhaber, Frank
APPLICANT: Eisenhaber, US-09-10-10
ITILE OF INVENTION: Chromatin-Regulator Genes
ITILE REFERENCE: 0552.1670001
CURRENT APPLICATION NUMBER: US-09-589,892B
CURRENT APPLICATION NUMBER: US-08-945,988
PRIOR APPLICATION NUMBER: PCT/EP96/01818
PRIOR APPLICATION NUMBER: PCT/EP96/01818
PRIOR APPLICATION NUMBER: DE 195 16 776.7
PRIOR APPLICATION NUMBER: DE 195 16 776.7
PRIOR FILING DATE: 1995-05-10
NUMBER OF SEQ ID NOS: 21
SEQ ID NO 1
LENGTH: 2600
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: 5'UTR
LOCATION: (1)..(89)
FEATURE:
NAME/KEY: CDS
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Query Match:
DB:
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                                                                ArgGluCysGlyPheIleAsnAspGluIlePheValGluLeuValAsnAlaLeuGlyGln
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        TyrCysGlyGluIleIleSerGlnAspGluAlaAspArgArgGlyLysValTyrAspLys
                                                                      GACCCTGACCTCTGTCTTACTTGTGGAGCCGCTGACCATTGGGACAGTAAAAATGTGTCC
                                                                             AspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAspSerLysA8nValSer
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101 LeuAsnAlaValAlaSerValProTleMetTyrSerTrpSerProLeuGlnGlnAsnPhe 1	Qy 81 ArgGluCysSerValThrSerAspLeuAspPheProThrGlnValIleProLeuLysThr 100	Qy 61 LYBGlnArgArgIleGlnDroValHisIleLeuThrSerValSerSerLeuArgGlyThr 80	Qy 41 MetPheSerSerAgnArgGlnLygTleLeuGluArgThrGluIleLeuAgnGlnGluTrp 60 	Qy 21 SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgAlaAspGluValLysSer 40	OY 1 MetGlyGlnThrGlyLysLysSerGluLysGlyProValCysTrpArgLysArgValLys 20	_		; ORGANISM: Homo sapiens US-10-104-047-1192 Alignment Scores.	SOFTWARE: Patentin Ver. 2.1 SEQ ID NO 1192 LENGTH: 2476 TYPE: DNA	CURRENT FILING DATE: 2002-03-25 PRIOR APPLICATION NUMBER: PRIOR FILING DATE: 2002-03-25 NUMBER OF SEO ID NOS: 4006	APPLICANT: HELIX RESEARCH INSTITUTE FILE OF INVENTION: No. 6943241el full length cDNA FILE REPERRENCE: H1-A0105 CUBRENT APPLICATION HYMRER: US/10/104 047	20 20 P	CY 14 AIGNIMECGILLEPTO 746 DB 2310 AGAGAAATGGAAATCCCT 2327 RESHT.T 2	2250 GAGCTGTTTTTGATTACA	2190 ATGGTTAACGGTGATCACAGGATAGGTATTTTGCCAAGAGAGCCATCCAGACTGGCGAA		2070 TACATGTGCAGCTTTCTGTTCAACTTGAACAATGATTTTTGTGGTGGATGCAACCCGCAAG	Qy 661 TyrMetCysSerPheLeuPheAsnLeuAsnAsnAspPheValValAspAlaThrArgLys 680
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Sequence 8, Application US/09699266A
Patent NO. 6559354
GENERAL INFORMATION:
APPLICANT: Ma, Hongchang
APPLICANT: Odell, Joan T.
APPLICANT: Odell, Joan T.
APPLICANT: Rafalski, J. Antoni
TITLE OF INVENTION: TRANSCRIPTION AND GENE EX
FILE REFERENCE: BB1164 US NA
CURRENT APPLICATION NUMBER: US/09/699,266A
CURRENT FILING DATE: 2000-10-27
PRIOR APPLICATION DATE: 1999-04-16
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; PRIOR FILING DATE: 198-04-27
; NUMBER OF SEQ ID NOS: 13
; SOFTWARE: Microsoft Office 97
; SEQ ID NO 8
; EENGTH: 3148
; TYPE: DNA
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ATG-----GAGCGGGCTGCTGATGACATAAAGGCCAGGTATGAAATTCTGCATGGTGAG 828
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           SerPheHisThrLeuPheCysArg----
                                                                           CysThrProAsnIleAspGlyProAsnAlaLysSerValGlnArgGluGlnSerLeuHis
                                                                                                                  AAAACTAAGGATTCTTGCAAGAAAGGGACTGAGCATAATGTCAAAGTGGAAGATTTGTAC
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1672 AGGAAAGAATTCGTCAATGAAGAATTTAATGAAAGCAGGAGGTGTACTTGAGA 424 IleGluProProGluAsnValGluTrpSerGlyAlaGluAlaSerMetPheArgValLeu	380 Serasp	TCTTTTGACAATCTCTTCTGTCGACCACGAGAACAA LeuHis	
GAGAATTTATGCAAGCAGGAGGTGTACTTGAGA 1725 GluTrpSerGlyAlaGluAlaSerMetPheArgValLeu 443	TTTGGCAAGGGACATGAAGCTTAGGTCTGAT 1491 Glu 397 ATCCTCACAACAGAGTTCTCCAAGCACAAGA 1551		
PATENT PILING DATE: 1998-10-20 CURRENT PILING DATE: 1998-10-22 CURRENT PILING DATE: 1998-05-01 MUMBER OF SEQ ID NOS: 324 SEQ ID NO 1 SEQ ID NO 1	11 ALBASDATGATGGLYLYBVS 11YFASDLYSTYTMETCYSSETTELEURHERSHILE 11	Oy 1945 TCANGATATITTAGANGGCANGGTANAGTICGTTCGANGTACACTIGGANATCIGCA 2004 Oy 502HisCysargLysliegInLeuLyslyshapGlySerSerAshHisValTyrAsh 519 Db 2005 GGTTACAATTTCAAAAGGATTACCGAAAGGANGGANGGANGGANGGANGGANGGANGGANG	1945. ТОВЫСБЕТТЕТТЕГЕВЕСЕТСЕВЕСТЕГЕ В В СТЕТСЕТСЕТСЕТСЕ В В СТЕТСЕТСЕ В В СТЕТСЕТСЕ В В СТЕТСЕТСЕ В В СТЕТСЕТСЕ

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                                                                  uAlaIleSerSerMetPheProAspLysGly-----
                                                                                                                       pHisArgAspAspLysGluSerArgProProArgLysPheProSerAspLysIlePheGl
                                                                                                                                                     GGAAGATGAAGAAGAAGAAGAAGAAATCAAGAAAAAAAATGCGAATTTTCTGAAGA
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                                         ATTTATATGGACGGTTGGGCAGGACTATGGTTTGGATGATCTGGTCGTGCGGCGTGCTCT
                                                                                                                                                                                                                                                                                        -GluGluLeuIleLysAsnTyrAspGlyLysValHisGlyAspArgGluCysGlyPheIl
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APPLICANT: Harada, John
APPLICANT: Goldberg, Robert B.
APPLICANT: Goldberg, Robert B.
APPLICANT: The Regents of the University of California
ITILE OF INVENTION: Nucleic Acids That Control Seed and Fru
TITLE OF INVENTION: Development in Plants
FILE REFERENCE: 023070-086120US
CURRENT APPLICATION NUMBER: US/09/812,283
CURRENT FILING DATE: 2001-03-19
PRIOR APPLICATION NUMBER: 09/177,249
PRIOR FILING DATE: 1998-10-22
PRIOR APPLICATION NUMBER: US 09/071,838
PRIOR APPLICATION NUMBER: US 09/071,838
PRIOR FILING DATE: 1998-05-01
NUMBER OF SEQ ID NOS: 324
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 1
LENGTH: 2136
                                            ; FEATURE:
; NAME/KEY: CDS
; LOCATION: (43)..(211
; CTHER INFORMATION: £
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SLYSHisLeuLeuAlaProSerAspValAlaGlyTrpGlyIlePheIleLysAspPr 631
                                                                                                                                                                       aValArgGluCysAspProAspLeuCys--------
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                                                             TCTTGGTGAGACACCAGTGCAAATCCAATGCAAGAACATGCAATTCCTCCTTCAAACCAA 1670
                                                                                                                                           TAATCGTGAATGCGATCCAGATCTTTGTCGGAGTTGTCCTCTTAGCTGTGGAGATGGCAC 1610
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US-09-071-838A-1
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PATENT NO. 7029917
GENERAL INFORMATION:
APPLICANT: Fischer, Robert L.
Ohad, Nir
                                                                                                                                                                   INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ver:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION UMMBER: US/09/071,838A
PILING DATE: 01-May-1998
CLASSIFICATION: CURKNOWN>
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Goldberg, Robert B.
TITLE OF INVENTION: Nucleic Acids That Control Seed
Fruit Development in Plants
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1791
                                                                                                                                                                                                         NAME: Bastian, Kevin L.
REGISTRATION NUMBER: 34,774
REFERENCE/DOCKET NUMBER: 02:
TELECOMMUNICATION IMFORMATION:
TELEPHONE: (415) 576-0200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1971
                                                                                                                                             SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
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                                            MOLECULE TYPE: cDNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: 94111-3834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: San Francisco
STATE: California
      NAME/KEY:
                                                                 TOPOLOGY:
                                                                                  STRANDEDNESS: single
                                                                                                     TYPE: nucleic acid
                                                                                                                             LENGTH: 2136 base
                                                                                                                                                                                        TELEFAX: (415)
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Yadegari, Ramin
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; OTHER INFORMATION: /product= "Arabidopsis; fertilization-independent endosperm (FIEI)"
; endosperm (FIEI)"
; SEQUENCE DESCRIPTION: SEQ ID NO: 1:
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             CGCCAAGTACCTCGAAGTGGATGTTTCGGACATATTGGAAAGATACAATGAACTCAAGCT
                                                                                uAlaIleSerSerMetPheProAspLysGly-------
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aValArgGluCysAspProAspLeuCys-----LeuThrCysGlyAlaAlaAs
                          TGGAGGATGTAATTGTGCAATTGGCCAATGCACAAATCGACAATGTCCTTGTTTTTGCTGC
                                      eProGlyCysArgCysLys---AlaGlnCysAsnThrLysGlnCysProCysTyrLeuAl
                                                                           ACTCACGAAAATTGCTGCGAGAAATATTGCGGGTGCTCAAAGGATTGCAACAATCGCTT
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                                                                                                lileAlaGlnAsnPheCysGluLysPheCysGlnCysGserSerGluCysGlnAsnArgPh
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Patent No. 6239327

Patent No. 6239327

Patent INFORMATION:

APPLICANT: Cold Spring Harbor Labs

TITLE OF INVENTION: No. 6239327el Seed Specific Polycomb Group Gene and Methods

TITLE OF INVENTION: use for Same

FILE REFERENCE: mea genes

CURRENT APPLICATION NUMBER: US/09/061,769A

CURRENT PILING DATE: 1998-04-16

PRIOR APPLICATION UNMBER: 09/061,769

PRIOR PILING DATE: 1998-04-16

PRIOR PILING DATE: 1998-04-16

NUMBER OF SEQ ID NOS: 21
                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 1
LENGTH: 2315
                                                                                                                                                                                                 OTHER INFORMATION: Description NAME/KEY: CDS LOCATION: (14)..(2083)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlnTyrAsnAspAspAspAspAspAspAspGlyAspAspAspProGluGlu---ArgGluGlu 198
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                ACAGAA--
                                         LysGluPheAlaAlaAlaLeuThrAlaGluArgIleLysThrProProLysArgProGly 351
                                                                                         Leu-----AspAsnLysProCysGlyProGlnCysTyrGlnHisLeuGluGlyAla
                                                                                                                       CATATGCATGAGAAGTAT---GAGCCCGAGTCTAGATCCAGCGAAGACAAATCTAGTTTG
                                                                                                                                             PheLeuHisProPheHisAlaThrProAsnThrTyrLysArgLysAsnThrGluThrAla
                                                                                                                                                                           ACTGCTTTCCAGGATTTTGCTGATAGACGTCATTGCCGTCGTTGCATGATATTCGATTGT
                                                                                                                                                                                                    ThrLeuPhe----
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                                                                                                                                                                                                                                                                                   AGATACAATGAACTCAAGCTTAAGAAT----
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                                                                    TTTGAGGATGAAGATAGACAACCATGCAGTGAGCATTGTTACCTCAAGGTGAGGAGTGTG
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                   GCTGATCATGTG---
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                                                                                                                                                        IleIleSerGlnAspGluAlaAspArgArgGlyLysValTyrAspLysTyrMetCysSer :::|||::: ||||:::
                                                                                                                                                                                                                        GTGCATTTACATGGGACTCTCTTAAAAAGAATGAGTATCTCGGAGAATATACTGGAGAA
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                                           TACCTCTTTACCTTGAATGATCAGCTCGAAATCGATGCTCGCCGTAAAGGAAAACGAGTTC 1861
                                                                                                                                                                                                                                                                    GlyIlePheIleLysAspProValGlnLysAsnGluPheIleSerGluTyrCysGlyGlu
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                                                                                                                                CTGATCACTCATGAAGCTAATGAGCGTGGGAGAATAGAAGATCGGATTGGTTCTTCC
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SOPTWARE: PatentIn Ver. 2.1
SEQ ID NO 16
LENGTH: 2799
TYPE: DNA
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Patent No. 6906244
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TITLE OP INVENTION: Compositions and Methods
TITLE OP INVENTION: Development
FILE REFERENCE: 023070-116710US
CURRENT APPLICATION NUMBER: US/10/176,884
CURRENT FILING DATE: 2002-06-21
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GTCATTTCAGTGCCTCATCTGATTATAATTCTTACGAAGATCAAGGTTATGTTCTTGATG
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                                                        AspLeuAspPheProThrGlnValIleProLeuLysThrLeuAsnAlaVal-----
                                                                                                                 CAGAGGATGATAATGGAGGAGACAACAAATCACTTTTGTCGAGAATGCAAAACCCCACTTC
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Dang, Van-Dinh
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Yadegari, Ramin
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412 SerArgCysGlnThrProlleLysMetLysProAsnIleGluProProGluAsnValGlu 431	AsnAsnAspLysGluGluGluLysLysAspGluThrSerSerSerGluAlaAsn	ValLeuGluSerLysA	352 GlyArgArgGlyArgLeuProAsnAsnSerSerArgProSerThrProThrIleAsn 371 :::	332 LygGluPheAlaAlaAlaLeuThrAlaGluArgIleLygThrProProLygArgProGly 351	315 LeuAspAsnLysProCysGlyProGlnCysTyrGlnHisLeuGluGlyAla 331	295 PheLeuHisProPheHisAlaThrProAsnThrTyrLysArgLysAsnThrGluThrAla 314	283 ThrLeuphe	AsnIleAspGlyProAsnAlaLysSerValGlnArgGluGlnSerLeuHisSerPheHis	243 LysfyrLysGluLeufhrGluGlnGlnLeuProGlyAlaLeuProProGluCysThrPro 262 :::	236ThralaGluGluLeuLysGlu 242 637 CTGGTCGTGCGGCGTGCTCTCGCCAAGTACCTCGAAGTGGATGTTTCGGAACATATTGGAA 696	219 ProSerAspLysIlePheGluAlaIleSerSerMetPheProAspLysGly 235	199 LysGlnLysAspLeuGluAspHisArgAspAspLysGluSerArgProProArgLysPhe 218	180 GlnTyfAsnAspAspAspAspAspAspAspAspAspProGluGluArgGluGlu 198 508 TTGAGCAGTGAAGAAGAAGGAAGAAGAAGAAGAAGAAATCAAGAAAAGAA 567	160 AspArgGluCysGlyPheIleAsnAspGluIlePheValGluLeuValAsnAlaLeuGly 179	144 ThrPheIleGluGluLeuIleLy8AsmTyrAspGlyLy8ValHisGly 159 ::::: :::	124 AspGluThrValLeuHisAsnIleProTyrMetGlyAspGluValLeuAspGlnAspGly 143	105ALASETVALFIOLLEMECTYTSETITDSETFTOLEMGITASHFREMECVALGIT 123 302 AGGATCAAGATTATGCTCTTGAAGAAGATGTA-CCATTATTTCTTGATGAA 351
RESULT 9 US-09-061-769A-3 ; Sequence 3, Application US/09061769A ; Patent No. 6239327 ; GENERAL INFORMATION: ; APPLICANT: Cold spring Harbor Labs	Qy 725 ABDTyrArgTyrSerGlnAlaABDAla	Qy 705 AspHisArgIleGlyIlePheAlaLys. ::: ::: :::	1849 AA	1789	1729	Db 1669 GGTGCATTTACATGGGACTCTCTTAAA Oy 645 IleIleSerGlnAspGluAlaAspArg	Db 1609 CAATTCCTCCTTCAAACCAATAAAAAG Qy 625 GlyllePhelleLysAspProValGln	Db 1549 CTTAGCTGTGGAGATGGCACTCTTGGTW Qy 605 SerIleGlnArgGlySerLysLysHis	ь	1429	1369 GG 551 Se	1312 AG	μı	1207	1147 477	1087 470	Db 1027 TGGACGCCTGTAGAGAAGGATCTTTACT Oy 452 CysAlaIleAlaArgLeuIle

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705 AspHisArgIleGlyIlePheAlaLysArgAlaIleGlnThrGlyGluGluLeuPhePhe	용 성
685 ArgPheAlaAsnHisSerValAsnProAsnCysTyrAlaLysValMetMetValAsnGly 	B 8
665 PheLeuPheAsnLeuAsnAsnAspPheValValAspAlaThrArgLysGlyAsnLysIle :::	B 8
645 IleIleSerGlnAspGluAlaAspArgArgGlyLysValTyrAspLysTyrMetCysSer	유 왕
625 GlyllePhelleLysAspProValGlnLysAsnGluPhelleSerGluTyrCysGlyGlu	<u>გ</u> გ
605 SerīleGlnārgGlySerīlyslysHisLeuLeuLeuAlaProSerāspValālaGlyTrp ::: :::	음 성
586 LeuThrCysGlyAlaAlaAspHisTrpAspSerLysAsnValSerCysLysAsnCys ::: 1549 CTTAGCTGTGGAGATGGCACTCTTGGTGAGACACCAGTGCAAATCCAATGCAAGAACATG	유 성
570 GlnCysProCysTyrLeuAlaValArgGluCysAspProAspLeuCys	8 8
551 SerGluCysGlnAsnArgPheProGlyCysArgCysLysAlaGlnCysAsnThrLys	8 8
531 AspSerSerCysProCysVallleAlaGlnAsnPheCysGluLysPheCysGlnCysSer :::	B 8
511 ABDGlySerSerABnHisValTyrABnTyrGlnProCysABpHisProArgGlnProCyB 	8 8
491 LysLysLysHysHisArgLeuTrpAlaAlaHisCysArgLysIleGlnLeuLysLys :::: ::: :::	8 8
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SOFTWARE: Pate
; SEQ ID NO 3
FENGTH: 2327
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OTHER INFORMATION: Description
NAME/KEY: variation
LOCATION: (1760)..(1761)
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                                                                                            GlnTyrAsnAspAspAspAspAspAspAspGlyAspAspProGluGlu---ArgGluGlu
                                                                                                                                                  AspArgGluCysGlyPheIleAsnAspGluIlePheValGluLeuValAsnAlaLeuGly 179
                                                                                                                                                                                    ACATGGGTCTTCACCAAAAGTAGCCAGCTGATGGCTGAAAGTGAT---TCTGTGATTGGT
                                                                                                                                                                                                                ThrPheIle-----GluGluLeuIleLysAsnTyrAspGlyLysValHisGly
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                AAATGCGAATTTTCTGAAGAT
                                          LysGlnLysAspLeuGluAspHisArgAspAspLysGluSerArgProProArgLysPhe
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                                                      AspGlySerSerAsnHisValTyrAsnTyrGlnProCysAspHisProArgGlnProCys
                                                                                    CGCAAAAATCGAGACTCCGAAAATATGCTCGTTATCCGCCTGCTTTAAAGAAAAAACAACT 1324
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NAME/KEY: variation LOCATION: (1756)(1763) S-09-061-769A-4 Lignment Scores: 4.78e-58 Length: core: 707.00 Matches: ercent Similarity: 41.88 Mismatches lest Local Similarity: 26.68 Mismatches	PRIOR APPLICATION UNMER: 1996-04-16 PRIOR PILING DATE: 1998-04-16 NUMBER OF SEQ ID NOS: 21 SOFTWARE: Patentin Ver. 2.0 SEQ ID NO 4 LENGTH: 2322 TYPE: DNA ORGANISM: Artificial Sequence FEARURE: FEARURE: OTHER INFORMATION: Description of Artificial Sequence: MEA2	BSULT 10 S-09-061-769A-4 Sequence 4, Application Patent No. 6239327 PATENT INFORMATION: APPLICANT: Cold sprin TITLE OF INVENTION: N TITLE OF INVENTION: N TITLE APPERENCE: mea g CURRENT APPLICATION NU	ATTGTGAGAGATCAGAGGATTGGTCTATTTGCGGAGAGGAACGATCGAAGAAGGTGAG GluieuPhePheAspTyrArgTyrSerGlnAlaAspAla 733	661 TyrMetCysSerPh :: 1802 ATTGGTTCTTCCTA 681 GlyAsnLysIleAr :: 1862 GGAAACGAGTTCAA 701 MetValAsnGlyAs	1622 C 625 G 1682 G 645 I	Db 1382 GGACAGCAATGCCCTTGTTTAACTCACGAAAATTGCTGCAGAAAATTGCGGGTGCTCA 1441 Qy 551 SerGluCy8GlnAenArgPheProGlyCy8ArgCy8Ly8AlaGlnCy8AsnThrLy8 569 1442 AAGGATTGCAACAATCGCTTTGGAGGATGTAATTGTGCAATTGGCAATTGCAAAATCGA 1501 Qy 570 GlnCy8ProCy8TyrLeuAlaValArgGluCy8AspProAspLeuCy8
Qy 283 ThrLeuPhe	650 CTGGTCGTGCGGCGTGCTCTCGCCAAGTACCTCGAAG 243 LysTyrLysGluLeuThrGluGlnGlnLeuProGlyA ::: 710 AGATACAATGAACTCAAGCTTAAGAAT 263 ABNIleAspGlyProAsnAlaLysSerValGlnArgG 737GATGGAACTGCTGGTGAGGCTTCTG	Db 521 TTGAGCAGTGAAGAAGATGAGAAGATGAAGAAGAAGAAGAAGAAGA	160 482 180	Db 315 AGGATCAAGÀTTATGCTCTTGAAGAAGATGTA-CCÀTTÀTTTCTTGATGÀÄ 364 Qy 124 ABPGIUThrValLeuHiBABRILEPrOTYIMETGIYABPGIUValLeuABPGINABPGIY 143	Qy 78 ArgGly	Query Match: 17.5% Indels: 216 DB: 3 Gaps: 29 US-10-773-302-2 (1-746) x US-09-061-769A-4 (1-2322) Qy 18 ArgValLysSerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArgAlaAspGlu 37 ::: Db 58 CGAACTAAATCAGAT

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IleIle-----SerGlnAspGluAlaAspArgArgGlyLysValTyrAspLysTyrMe
                                                                                                                            LeuThrCysGlyAlaAlaAspHisTrpAspSerLys---AsnValSerCysLysAsnCys
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                                                                     CTTAGCTGTGGAGATGGCACTCTTGGTGAGACACCAGTGCAAATCCAATGCAAGAACATG
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Percent Similarity:
Best Local Similarity:
Query Match:
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US-09-699-266A-10
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                                                                                                                                                                                                                                                                                                                                                                                                            US-09-699-266A-10
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GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/699,266A CURRENT FILING DATE: 2000-10-27 PRIOR APPLICATION NUMBER: PCT/US99/08385 PRIOR FILING DATE: 1999-04-16 PRIOR APPLICATION NUMBER: 60/083,212 PRIOR FILING DATE: 1998-04-27 NUMBER OF SEQ ID NOS: 13 SOFTWARE: Microsoft Office 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Ma, Hongchang
APPLICANT: Morakinyo, Layo O.
APPLICANT: Odell, Joan T.
APPLICANT: Orozeco Jr., Emil M.
APPLICANT: Rafaleki, J. Antoni
TITLE OP INVENTION: TRANSCRIFTION AND GENE
FILE REFERENCE: BB1164 US NA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 1406
TYPE: DNA
ORGANISM: Tri
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                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: (513)
OTHER INFORMATION:
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                                                               GluPheArgValLysGluSerSerIleIleAlaProAlaProAlaGluAspValAspThr 487
                                                                                                                                                                    TGGAGTACCCTAGAGAGGGATTTATATCTGAAGGGAÁTÁGAGATATTTGGGAAAÁÁTAGC
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Matches:
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GENERAL INFORMATION:
APPLICANT: Jenuwein, Thomas
APPLICANT: Laible, Gotz
APPLICANT: Laible, Gotz
APPLICANT: O'Carroll, Donal
APPLICANT: Bisenhaber, Frank
APPLICANT: Rea, Stephen
ITILE OF INVENTION. Chromatin-Regulator Genes
FILLE REFERENCE: 0652.1670001
CURRENT APPLICATION NUMBER: US/09/589,892B
CURRENT FILING DATE: 2000-06-09
PRIOR APPLICATION NUMBER: US 08/945,988
PRIOR APPLICATION NUMBER: US 08/945,988
PRIOR APPLICATION NUMBER: DET/EP96/01818
PRIOR APPLICATION NUMBER: DET/EP96/01818
PRIOR APPLICATION NUMBER: DE 195 16 776.7
                                                                                                                                                                                                                                                                                                                                       US-09-589-892B-5
                                                                                                                                                                                                                                                                                             Sequence 5, Application US/09589892B Patent No. 6689583
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GENERAL INFORMATIONS OF THE PROPERTY OF APPLICANT: Chad, Nir
APPLICANT: Chad, Nir
APPLICANT: Kiyosue, Tomohiro
APPLICANT: Yadegari, Ramin
APPLICANT: Margossian, Linda
APPLICANT: Margossian, Linda
APPLICANT: Harada, John
APPLICANT: The Regents of the University of California
APPLICANT: The Regents of the University of California
APPLICANT: The Regents of the University of California
TITLE OF INVENTION: Development in Plants
FILE REFERENCE: 023070-086120US
CURRENT APPLICATION NUMBER: US/09/177,249
CURRENT APPLICATION NUMBER: US/09/177,249
EARLIER APPLICATION NUMBER: US 09/071,838
EARLIER APPLICATION NUMBER: US 09/071,838
EARLIER FILING DATE: 1998-05-01
NUMBER OF SEQ ID NOS: 324
COPTWARE: Patentin Ver. 2.0
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Best Local Similarity:
Query Match:
DB:
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; ORGANISM: Homo sapiens
US-09-589-892B-5
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NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn version 3.:
SEQ ID NO 5
LENGTH: 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 6, Applic
Patent No. 6229064
                  FEATURE:
NAME/KEY: CDS
LOCATION: (1).
                                                                                   LENGTH: 7015
TYPE: DNA
ORGANISM: Arabidopsis
LOCATION: (1)..(7014)
OTHER INFORMATION: fertilization-independent endosperm 1 (FIE1)
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LOCATION: (3)..(7013)
OTHER INFORMATION: SET/polycomb gene genomic
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OTHER INFORMATION: fertilization-independent endosperm 1 (FIB1)
OTHER INFORMATION: SET/polycomb gene genomic sequence reading f
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                                                                                                        APPLICANT: Fischer, Robert L.
APPLICANT: Klyosue, Tomohiro
APPLICANT: Klyosue, Tomohiro
APPLICANT: Klyosue, Tomohiro
APPLICANT: Yadegari, Ramin
APPLICANT: Harada, John
APPLICANT: Harada, John
APPLICANT: Goldberg, Robert B.
APPLICANT: The Regents of the University of California
TITLE OF INVENTION: Nucleic Acids That Control Seed and Fri
FILE REFERENCE: 023070-086120US
CURRENT APPLICATION NUMBER: US/09/812,283
CURRENT APPLICATION WHEER: 09177,249
PRIOR APPLICATION NUMBER: 09/071,838
PRIOR FILING DATE: 1998-10-22
PRIOR APPLICATION NUMBER: US/09/071,838
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                SOFTWARE: Pate
SEQ ID NO 6
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                                                                        PRIOR FILING DATE: 1998-05-01
NUMBER OF SEQ ID NOS: 324
TYPE: DNA
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FEATURE:
NAME/KEY:
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OTHER INFORMATION: SET/polycomb gene genomic sequence reading f:
NAME/KEY: CDS
LOCATION: (2)..(7015)
OTHER INFORMATION: fertilization-independent endosperm 1 (FIR1)
OTHER INFORMATION: SET/polycomb gene genomic sequence reading f
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LOCATION: (3)
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R INFORMATION: fer
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                                                                                                                                                                                                                                                                                                                           uCysLeuThrCysGlyAlaAlaAspHisTrpAsp------
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ATGGATGGGGTGCATTTACATGGGTAAGCAATCATGTAAATATAAGAATAAGTTTAATAG
                          laGlyTrpGlyIlePheIle--
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                                                                                                                  AACCAATAAAAAGGTAATCAACGTCAAATCCGTACCGAAAATTTAAAACTAATTATACGA 5378
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Matches:
Conservative:
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Indels:
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sequence reading f
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US-09-071-838A-6
; Sequence 6, Application US/09071838A
; Patent No. 7029917
; GENERAL INFORMATION:
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                                                         NUMBER OF SEQUENCES: 324
CORRESPONDENCE ADDRESS:
TOWNSEND TO STREET: Two Embarcadero Co
CITY: San Francisco
STATE: California
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ZIP: 94111-3834
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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                                                                                                                                                 Goldberg, Robert B.
OF INVENTION: Nucleic Acids Tha
                                              COUNTRY: USA
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Yadegari, Ramin
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Center, Eighth Floor
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Qy 547 547 Db 4959 ATTCAATTTTCCTAAGCCGGAAGATCCATGAGATTTAATTTGAACATGAGTTTGTATTT 5018 Qy 548Gln-CysSerSerGluCysGlnAsnArgPheDroGlyCysArgCysLysAl 564	Qy 531 ABpSerSerCyBProCyBVallleAlaGlnAsnPheCyBGluLyBPheCyB 547	Qy 511 ABpGlySerSerAsnHisValTyrAsnTyrGlnProCysAspHisProArgGlnProCys 530	YSLYSLYSARS	Mismatches: Indels: Gaps: (1-7015)	nment Scores: 5.12e-31 . No.: 5.12e-31 e: 436.00 ent Similarity: 34.5%	SEQUENCE DESCRIPTION: SEQ ID NO: 6: US-09-071-838A-6	OTHER INFORMATION: /product= "Arabidopsis; fertilization-independent; endosperm 3 [SET/polycomb gene genomic serus) SET/polycomb	gene genomic sequence reading frame 2" ; FEATURE; ; RAME/KEY: CDS ; COCATION: 3 7013	; LOCATION: 27015 ; OTHER INFORMATION: /product= "Arabidopsis ; fertilization-independent ; endosperm 3 (FTR3) SRT/polycomb	endosperm 3 (FIE3) SET/polycomb gene genomic sequence reading frame 1" FEATURE: NAME/KEY: CDS	NAME/KEY: CDS LOCATION: 17014 COTHER INFORMATION: /product= "Arabidopsis" fertilization-independent	STRANDEDNESS: single TOPOLOGY: linear MOLECULE TYPE: DNA (genomic) PRATURE.	INFORMATION FOR SEQ ID NO: 6: SEQUENCE CHARACTERISTICS: LENGTH: 7015 base pairs TYPR: nucleic acid	REFERENCE/DOCKET NUMBER: 023070-086100US TELECOMMUNICATION INFORMATION: TELEPHONE: (415) 576-0200 TELEPACK: (415) 576-0300	CLASSIFICATION: <unknown> ; ATTORNEY AGENT INFORMATION: ; NAME: Bastian, Kevin L. ; REGISTRATION NUMBER: 34 774</unknown>	COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/071,838A PTITING DATE: 01-May-1998
Db 6038 ATGATTTTTCTTGTCGAGAAAATTTAGGTTACGAAAAATTTATGGTTCGTGTGCAGTTG 6097 Oy 700 MetMetValAsnGlyAspHisArgIleGlyIlePheAlaLysArgAlaIleGlnThrGly 719	TACTCGTCGTTGATTGGTTTTCATATTGAAGATATTCCAAGAAACTCAAACTCATTTTAA	5918 TAACATTATACAAACAAAATACTTATGTTAGTTTCTTTAGTTAAATCGTGTATCAACTT	691 ValAsnProAsnCysTyrAlaLysVal	Qy 676AspAlaThrArgLysGlyAsnLysIleArgPheAlaAsnHisSer 690	674 5739	QY 659 splysTyrMetCysSerPheLeuPheAsnLeuAsnAsnAspPhe 673	Qy 639 erGluTyrCysGlyGluIleIleSerGlnAspGluAlaAspArgArgGlyLysValTyrA 659	Qy 629LysaspProValGlnLysasnGlnPheIleS 639	Db 5499 TTATTGGTGCATTCATAACACTTTTTTTTTTTAATAATGTTTTATACTTTAGACCATTA 5558	622 laGlyTTpGlyIlePheIle	Qy 614	Qy 606IleGlnArgGlySerLy8Ly8Hi8	Qy .599 605 i.:	Qy 596	Qy 584 uCysLeuThrCysGlyAlaAlaAspHisTrpAsp	Db 5019 TTTGTTCAGGTGCTCAAAGGATTGCAACAATCGCTTTGGAGGATGTAATTGTGCAATTGG 5078 Oy 564 aGlnCysAsnThrLysGlnCysProCysTyrLeuAlaValArgGluCysAspProAspLe 584 :: :: Db 5079 CCAATGCACAAATCGACAATGTCCTTGTTTTGCTGCTAATCGTGAATGCGATCCAGATCT 5138

용 *칭* 720 GluGluLeuPhePheAspTyrArgTyrSerGlnAlaAspAla 733 ||||||||||||||||||| 6158 GAGGAGCTTTTCTTCGACTACTGCTATGGACCAGAACATGCG 6199

Search completed: August 13, 2006, 17:30:09 Job time : 396.311 secs

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Minimum DB
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-MODEL=frame+_p2n.model
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Listing first 45 summaries
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·NO MMAP -NEG SCÖRES=0 -WÄIT -DSPBLOCK=100 -LONGLOG -DEV TIMEOUT=120
·WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6 -FGAPEXT=7
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                                                                                                                                                                     score greater than or equal to the score of the result bein and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                     Pred. No.
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  4051
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6: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US10A_PUBCOMB.seq:*

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10: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US10B_PUBCOMB.seq:*

11: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US10F_PUBCOMB.seq:*

12: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US11A_PUBCOMB.seq:*

13: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US11B_PUBCOMB.seq:*

14: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US11B_PUBCOMB.seq:*

15: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US11B_PUBCOMB.seq:*

16: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US11B_PUBCOMB.seq:*

16: /EMC_Celerra_SIDSJ/ptodata/2/pubpna/US11B_PUBCOMB.seq:*
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| Sequence 1157, Application US/09954456 |
| Patent No. US20020115057A1 |
| GENERAL INFORMATION: |
| APPLICANT: Young, Paul |
| TITLE OF INVENTION: Process for Identifying Anti-Cancer Therapeutic Agents Using Callitle OF INVENTION: Sets |
| TITLE OF INVENTION: Sets |
| FILE REFERENCE: 689290-76 |
| CURRENT APPLICATION NUMBER: US/09/954,456 |
| CURRENT APPLICATION NUMBER: US/60/233,617 |
| PRIOR APPLICATION NUMBER: US/60/234,052 |
| PRIOR APPLICATION NUMBER: US/60/234,052 |
| PRIOR APPLICATION NUMBER: US/60/234,923 |
| PRIOR APPLICATION NUMBER: US/60/234,923 |
| PRIOR FILING DATE: 2000-09-25 |
| PRIOR APPLICATION NUMBER: US/60/235,134 |
| PRIOR APPLICATION NUMBER: US/60/235,637 |
| PRIOR APPLICATION NUMBER: US/60/235,637 |
| PRIOR APPLICATION NUMBER: US/60/235,638 |
| PRIOR APPLICATION NUMBER: US/60/235,638 |
| PRIOR APPLICATION NUMBER: US/60/235,638 |
| PRIOR APPLICATION NUMBER: US/60/235,711 |
| PRIOR APPLICATION NUMBER: US/60/235,711 |
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; PRIOR APPLICATION NUMBER: US/60/235,720
; PRIOR FILING DATE: 2000-09-27
; PRIOR APPLICATION NUMBER: US/60/235,840
; PRIOR RILING DATE: 2000-09-27
; PRIOR APPLICATION NUMBER: US/60/235,863
; PRIOR FILING DATE: 2000-09-27
; NUMBER OF SEQ ID NOS: 2276
; SOPTWARE: Patentin version 3.0
; SEQ ID NO 1157
; LENGTH: 2600
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; ORGANISM: Homo
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                       TyrAsnAspAspAspAspAspAspAspAspAspProGluGluArgGluGluLysGln
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  CysLysAsnCysSerIleGlnArgGlySerLysLysHisLeuLeuLeuAlaProSerAsp
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                                            AspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAspSerLysAsnValSer 600
                                                                                CGCTGCAAAGCACAGTGCAACACCAAGCAGTGCCCGTGCTACCTGGCTGTCCGAGAGTGT
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; ORGANISM: Homo sapiens US-10-843-641A-4184 Alignment Scores: Pred. No.: 0 Length: 2600 Score: 4051.00 Matches: 746	<pre>prior filing DATE: 2001-10-03 prior Application data removed - See File Wrapper or PALM. prior Application data removed - See File Wrapper or PALM. prior Application Application See File Wrapper or PALM. prior NUMBER OF SEQ ID NOS: 8447 prior SEQ ID NO 4184 prior TYPE: DNA prior TYPE: DNA</pre>	; PRIOR PILING DATE: 2001-09-28; PRIOR APPLICATION UNMBER: US/09/968,007; PRIOR FILING DATE: 2001-10-02; PRIOR APPLICATION NUMBER: US/09/969,347; PRIOR FILING DATE: 2001-10-02; PRIOR APPLICATION NUMBER: US/09/969,708	PRIOR APPLICATION NUMBER: US/09/962,436 PRIOR FILING DATE: 2001-09-25 PRIOR FILING DATE: 2001-09-25 PRIOR FILING DATE: 2001-09-25 PRIOR FILING DATE: 2001-09-25 PRIOR FILING DATE: 2001-09-27 PRIOR FILING DATE: 2001-09-27 PRIOR PILING DATE: 2001-09-27 PRIOR APPLICATION NUMBER: US/09/967,768	CURRENT APPLICATION NUMBER: US/10/843,641A CURRENT FILING DATE: 2004-05-12 PRIOR APPLICATION NUMBER: US/09/873,367 PRIOR FILING DATE: 2001-06-05 PRIOR APPLICATION NUMBER: US/09/954,531 PRIOR APPLICATION NUMBER: US/09/954,456 PRIOR APPLICATION NUMBER: US/09/954,456	Mrrr 20 P 0 00	Db 2250 GAGCTGTTTTTGATTACAGATACAGCCAGGCTGATGCCCTGAAGTATGTCGGCATCGAA 2309 Qy 741 ArgGluMetGluIlePro 746 Db 2310 AGAGAAATGGAAATCCCT 2327 RESULT 2		Db 1890 TGCAAGAACTGCAGTATTCAGCGGGGCTCCAAAAAGCATCTATTGCTGGCACCATCTGAC 1949 Qy 621 ValalaGlyTrpGlyIlePheIleLygAspProValGlnLygAsnGluPheIleSerGlu 640
Qy 301 AlaThrProAsmThrTyrLysArgLysAsmThrGluThrAlaLeuAspAsmLysProCys 320	870 281 930	Qy 241 LyeGluLyeTyrLyeGluLeuThrGluGlnGlnLeuProGlyAlaLeuProProGluCye 260	Qy 201 LygaspleuGluAspHisArgaspAspLygGluSerArgProProArgLygPheProSer 220	Oy 161 ArgGluCyeGlyPhelleAsnAsgGluIlePheValGluLevValAsnAlaLeuGlyGln 180		Qy 81 ArgGluCysSerValThrSerAspLeuAspPheProThrClnValIleProLeuLysThr 100		Percent Similarity: 100.0% Conservative: 0 Best Local Similarity: 100.0% Mismatches: 0 Ouery Match: 100.0% Indels: 0 DB: Gaps: 0 US-10-773-302-2 (1-746) x US-10-843-641A-4184 (1-2600) Oy 1 MetGlyGlnThrGlyLysLysSerGluLysGlyProValCysTrpArgLysArgValLys 20

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                GlyAsnLysIleArgPheAlaAsnHisSerValAsnProAsnCysTyrAlaLysValMet
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Publication No. US20050089880A1

APPLICANT: Jeanwein, Thomas

APPLICANT: Laible, Gotz

APPLICANT: Laible, Gotz

APPLICANT: Leible, Gotz

APPLICANT: Rea, Stephen

TITLE OF INVENTION: Chromatin-Regulator Genes

FILE REFERENCE: 0652.1670001

CURRENT APPLICATION NUMBER: US/10/773,302

CURRENT FILING DATE: 2004-02-09

PRIOR APPLICATION NUMBER: US/9/589,892

PRIOR APPLICATION NUMBER: US 09/945,988

PRIOR APPLICATION NUMBER: US 08/945,988

PRIOR APPLICATION NUMBER: US 08/945,988

PRIOR APPLICATION NUMBER: DCT/EP96/01818

PRIOR APPLICATION NUMBER: DCT/EP96/01818

PRIOR APPLICATION NUMBER: DCT/EP96/01818

PRIOR FILING DATE: 1996-05-02

PRIOR FILING DATE: 1996-05-02

PRIOR FILING DATE: 1995-05-10

NUMBER OF SEQ ID NOS: 21

SEQ ID NO 1

LENGTH: 2600

TYPE: DNA

ORGANISM: Homo Bapiens

FEATURE:

LOCATION: (1)..(89)

FEATURE:

NAME/KEY: CDS

LOCATION: (90)..(2330)
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US-10-773-302-1
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NAME/KEY: 3'UTR
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                    MetPheSerSerAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnGluTrp
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Pred. No.:
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APPLICANT: Ginsburg, Wendy M.
APPLICANT: Ginsburg, Wendy M.
APPLICANT: Zlotnik, Albert
TITLE OF INVENTION: Methods of Diagnosis of Soft Tissue Sarcoma, Compositions of Invention of Invention of Screening for Soft Tissue Sarcoma Modulators
FILE REFERENCE: 05882.0193.NPUS01
CURRENT APPLICATION NUMBER: US/10/723,860
CURRENT FILING DATE: 2003-11-26
PRIOR APPLICATION NUMBER: 60/429,739
PRIOR APPLICATION NUMBER: 60/429,739
PRIOR APPLICATION NUMBER: 60/429,739
PRIOR FILING DATE: 2002-11-26
NUMBER OF SEQ ID NOS: 8393
SOFTWARE: Patentin version 3.2
SEQ ID NO 5458
LENGTH: 2711
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 AsnPheCysGluLysPheCysGlnCysSerSerGluCysGlnAsnArgPheProGlyCys 560
                                                                                                                                                               GCACACTGCAGAAAGATACAGCTGAAAAAAGGACGGCTCCTCTAACCATGTTTACAACTAT
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US-10-153-668-231
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APPLICANT: MURAMATSU, Shuji
APPLICANT: MURAMATSU, Shuji
APPLICANT: ISHIZAWA, Kenya
TITLE OF INVENTION: STAT6 Activating Gene
FILE REFERENCE: 1254-02079
CURRENT APPLICATION NUMBER: US/10/153,668
CURRENT FILING DATE: 2001-05-24
PRIOR APPLICATION NUMBER: US 60/293,172
PRIOR APPLICATION NUMBER: US 60/316,031
PRIOR APPLICATION NUMBER: US 60/316,031
PRIOR APPLICATION NUMBER: US 60/328,403
PRIOR FILING DATE: 2001-08-31
PRIOR PILING DATE: 2001-08-31
PRIOR APPLICATION NUMBER: US 60/328,403
PRIOR FILING DATE: 2001-05-25
PRIOR APPLICATION NUMBER: UP 2001-157043
PRIOR APPLICATION NUMBER: UP 2001-260681
PRIOR APPLICATION NUMBER: UP 2001-313175
PRIOR PILING DATE: 2001-08-30
PRIOR PRICING DATE: 2001-10-10
PRIOR PILING DATE: 2001-10-10
PRIOR PILING DATE: 2001-10-10
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Pred. No.:
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               GlyAsnLysIleArgPheAlaAsnHisSerValAsnProAsnCysTyrAlaLysValMet
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GGTAACAAAATTCGTTTTGCAAATCATTCGGTAAATCCAAACTGCTATGCAAAAGTTATG
                                                         TACATGTGCAGCTTTCTGTTCAACTTGAACAATGATTTTGTGGTGGATGCAACCCGCAAG
                                                                       TyrMetCysSerPheLeuPheAsnLeuAsnAsnAspPheValValAspAlaThrArgLys
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Sequence 1043, Application US/10172118

Publication No. US20030224374A1

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APPLICANT: Linsley, Peter

APPLICANT: Ho, Mao, Mao

APPLICANT: No. Mao, Mao

APPLICANT: Van 't Veer, Laura

APPLICANT: Van de Vijver, Marc

APPLICANT: Van de Vijver, Marc

APPLICANT: Van de Vijver, Marc

APPLICANT: Bernards, Rene

TITLS OF INVENTION: Diagnosis and Prognosis of

FILE REFERENCE: 9301-175-999

CURRENT APPLICATION NUMBER: US/10/172,118

CURRENT APPLICATION NUMBER: 60/380,770

PRIOR APPLICATION NUMBER: 60/380,770

PRIOR APPLICATION SAPIE: 2002-05-14

NUMBER OF SEQ ID NOS: 2699

SEQ ID NO 1043

LENGTH: 2576

TYPE: DNA

ORGANISM: Homo sapiens

PUBLICATION HOMOSER: NM 004456

DATABASE ENTRY DATE: 2001-06-18
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Best Local Similarity:
Query Match:
DB:
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US-10-172-118-1043
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LeuAsnAlaValAlaSerValProIleMetTyrSerTrpSerProLeuGlnGlnAsnPhe 120
                                               ArgGluCysSerValThrSerAspLeuAspPheProThrGlnValIleProLeuLysThr 100
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RESULT 7

US-10-295-027-709

; Sequence 709, Application US/10295027
; Publication No. US20030232350A1
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; APPLICANT: Watson, Susan R.
; APPLICANT: Eos Biotechnology, Inc.
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ITILE OF INVENTION: Methods of Diagnosis of Cancer, Compositions and TITLE OF INVENTION: Methods of Screening for Modulators of Cancer FILE REFERENCE: 018501-012500US CURRENT APPLICATION NUMBER: US/10/295,027 CURRENT FILING DATE: 2002-11-13 PRIOR APPLICATION NUMBER: US 09/663,733 PRIOR FILING DATE: 2000-09-15 PRIOR FILING DATE: 2000-11-13 PRIOR APPLICATION NUMBER: US 60/350,666 PRIOR FILING DATE: 2001-11-15 PRIOR APPLICATION NUMBER: US 60/335,394 PRIOR PILING DATE: 2001-11-15 PRIOR PILING DATE: 2001-11-21 PRIOR APPLICATION NUMBER: US 60/332,464 PRIOR FILING DATE: 2001-11-21 PRIOR APPLICATION NUMBER: US 60/334,393 PRIOR APPLICATION NUMBER: US 60/334,393 PRIOR APPLICATION NUMBER: US 60/340,376 PRIOR FILING DATE: 2001-11-29 PRIOR APPLICATION NUMBER: US 60/347,211 PRIOR APPLICATION NUMBER: US 60/347,211 PRIOR APPLICATION NUMBER: US 60/347,349 PRIOR APPLICATION NUMBER: US 60/347,349 PRIOR APPLICATION NUMBER: US 60/347,349 PRIOR APPLICATION NUMBER: US 60/347,349 PRIOR APPLICATION NUMBER: US 60/347,349 PRIOR APPLICATION NUMBER: US 60/347,349 PRIOR APPLICATION NUMBER: US 60/347,349 PRIOR APPLICATION NUMBER: US 60/347,349 PRIOR APPLICATION NUMBER: US 60/347,349 PRIOR APPLICATION NUMBER: US 60/347,349 PRIOR APPLICATION NUMBER: US 60/347,349 PRIOR APPLICATION NUMBER: US 60/347,349 PRIOR APPLICATION NUMBER: US 60/355,250 PRIOR FILING DATE: 2002-02-08 PRIOR FILING DATE: 2002-02-08 PRIOR FILING DATE: 2002-02-08 PRIOR FILING DATE: 2002-02-03-03 PRIOR FILING DATE: 2002-02-03 PRIOR FILING DATE: 2002-02-03 PRIOR FILING DATE: 2002-02-03 PRIOR FILING DATE: 2002-02-03 PRIOR FILING DATE: 2002-02-03 PRIOR FILING DATE: 2002-02-03 PRIOR FILING DATE: 2002-02-03 PRIOR FILING DATE: 2002-02-03 PRIOR FILING DATE: 2002-02-03 PRIOR FILING DATE: 2002-02-03 PRIOR FILING DATE: 2002-02-03 PRIOR FILING DATE: 2002-02-03 PRIOR FILING DATE: 2002-02-03 PRIOR FILING DATE: 2002-02-03 PRIOR FILING DATE: 2002-02-03 PRIOR FILING DATE: 2002-02-03 PRIOR FILING DATE: 2002-02-03 PRIOR FILING DATE: 2002-02-03 PRIOR FILING DATE: 2002-02-03 PRIOR FILING DATE: 200
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   AlaHisCysArgLysIleGlnLeuLysLysAspGlySerSerAsnHisValTyrAsnTyr
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US-10-342-887-1043
Sequence 1043, Application US/10342887
Publication No. US20040058340A1
GENERAL INFORMATION:
APPLICANT: He, Yudong
APPLICANT: He, Yudong
APPLICANT: Linsley, Peter S.
APPLICANT: Mao, Mao
APPLICANT: Wan 't Veer, Laura Johanna
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APPLICANT: Van de Vijver, Marc J.
APPLICANT: Wan de Vijver, Marc J.
APPLICANT: Bernards, Rene
TITLE OF INVENTION: Diagnosis and Prognosis of Breast Cancer Pati
PILE REFERENCE: 9301-188-999
CURRENT APPLICATION NUMBER: 60/298,918
PRIOR APPLICATION NUMBER: 60/298,918
PRIOR APPLICATION NUMBER: 60/380,710
PRIOR PILING DATE: 2001-06-18
PRIOR PILING DATE: 2002-06-14
PRIOR PILING DATE: 2002-06-14
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Percent Similarity:
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Query Match:
DB:
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ITITLE OF INVENTION: HUMAN DIAPHANOUS-3 GENE A
FILE REFERENCE: 9301-196-999
CURRENT APPLICATION NUMBER: US/10/848,755A
CURRENT FILING DATE: 2004-05-18
PRIOR APPLICATION NUMBER: 60/471,842
PRIOR FILING DATE: 2003-05-11
NUMBER OF SEQ ID NOS: 275
SOFTWARE: PatentIn version 3.2 CAM: 301891-1
SEQ ID NO 129
LENGTH: 2576
TYPE: DNA
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US-10-848-755A-129
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                                                                                                                       ATGTTTAGTTCCAATCGTCAGAAAATTTTGGAAAAGAACGGAAATCTTAAACCAAGAATGG
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Matches:
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2 B 2 B 2 B 2 B 2 B 2 B 2 B 2 B 2 B 2 B	8 8 8 8 8 8 8 8 8 8 8
AAAGCTICAACCTICCAGCTCCTCTGAAGCAAATTCTCGGTGTCAAACACCAATAAAGATTCAAACTTCCAAGCTTCAAACTTCCAAGCTCAAATATCTCAAGCTTCAAACACCAATAAAAATTCAAACTTCAAACATTCAAACACCAATAAAAATTCTAAACCTCAAATATCTCAAACACCAATAAAAATTCTAAACCTCAAATATCTCAAACACCAATAAACACCAATAAAAATTCTAAACACCAAATATCTAAACCTCCAATGAAACCTCCAATGTTAAACACCCAATATATTCAAACCTCCAATGTTATTAAACCTCCTAAAGAATTCTTGGAAGCCTCAATGTTTAAACCTCCAATGTTTAAAACATTCTATGAAACCTTACTAATTCAAACACCAATGTTAATTCAAACATTCTAGAAATCTAAACAATCATTAATTCAAACATTCTAAACAATCATTAAACAATCATTAAAACAATCAATTAAAACAAAAAA	### B98 TTTCATACGCTTTTCTGTAGGCGATGTTTTAAATATGACTGCTTCCTACATCCTTTTCAT 301 AlaThrProAssThrTyrLysArgLysAssThrGluThrAlaLeuAspAssLysProCys 320

81 ArgGluCysSerValThrSerAspLeuAspPheProThrGlnValIleProLeuLysThr 	61 LygGlnArgArgIleGlnProValHisIleLeuThrSerValSerSerLeuArgGlyThr	41 MetPheSerSerAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnGluTrp	21 SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArgAlaAspGluValLysSer 	1 MetGlyGlnThrGlyLysSerGluLys 1	Query Match: 99.7% Indels: 0 DB: Gaps: 0 US-10-773-702-2 (1-746) x US-10-960-414-396 (1-2576)	0 4038.00 99.7%			71-76067 71-76067 NUMBER: US/10/960,414 : 2004-10-06 S: 500	APPLICANT: GEORGE, JOSHY APPLICANT: VEGA, VINSENSIUS B. TITLE OF INVENTION: METHODS, SYSTEMS, AND COMPOSITIONS FOR CLASSIFICATION, TITLE OF INVENTION: METHODS, SYSTEMS, AND COMPOSITIONS FOR CLASSIFICATION,	່ວພາດ	Db 2278 AGAGAAATCGCT 2295 RESULT 11	Db 2218 GAGCTGTTTGTTGATTACAGATACAGCCAGGCTGATGCCCTGAAGTATGTCGGCATCGAA 2277 Qy 741 ArgGluMetGluIlePro 746	721 GluLeuPhePheAspTyrArgTyrSerGlnAlaAspAlaLeuLysTyrValGlyIleGlu	Qy 701 MetValAsnGlyAspHisArgIleGlyTlePheAlaLysArgAlaIleGlnThrGlyGlu 720		2038 TACATGTGCAGCTTTCTGTTCAACTTGAACAATGATTTTGTGGTGGATGCAACCCGCAAG	Db 1978 TACTGTGGAGAGATTATTTCTCAAGATGAAGCTGACAGAAGAGGGAAAGTGTATGATAAA 2037 Qy 661 TyrmetCysSerPheLeuPheAsnLeuAsnAsnAsnAspPheValValAspAlaThrArgLys 680
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441 ArgValLeuIleGlyThrTyrAspAsnPheCysAlaIleAlaArgLeuIleGlyThr 460	421 LysProAsnIleGluProProGluAsnValGluTrpSerGlyAlaGluAlaSerMetPhe 440 	401 LysAspGluThrSerSerSerSerGluAlaAsnSerArgCysGlnThrProIleLysMet 420 	381 AspArgGluAlaGlyThrGluThrGlyGlyGluAsnAsnAspLysGluGluGluGluLys 400 	361 ABnSerSerArgProSerThrProThrIleABnValLeuGluSerLyBABpThrABpSer 380 	341 GluArgIleLysThrProProLysArgProGlyGlyArgArgArgArgLeuProAsn 360 	321 1018	301 AlaThrProAsnThrTyrLysArgLysAsnThrGluThrAlaLeuAspAsnLysProCys 320 	281 PheHisThrLeupheCysArgArgCysPheLysTyrAspCysPheLeuHisProPheHis 300	261 ThrProAsnIleAspGlyProAsnAlaLysSerValGlnArgGluGlnSerLeuHisSer 280 	7 241 LysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuProProGluCys 260	221 AsplysilePheGluAlaileSerSerMetPheProAsplysGlyThrAlaGluGluLeu 240 	201 LyshspLeuGluaspHisargAspAspLysGluSerArgProProArgLysPheProSer 220	/ 181 TyrAsnAspAspAspAspAspAspAspGlyAspAspProGluGluArgGluGluLysGln 200 		478 161	141 GlnAspGlyThrPheIleGluGluLeuIleLysAsnTyrAspGlyLysValHisGlyAsp	121 MetValGluAspGluThrValLeuHisAsnIleProTyrMetGlyAspGluValLeuAsp 140	101 LeuAgnAlaValAlaSerValProlleMetTyrSerTrpSerProLeuGlnGlnAgnPhe 120

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Sequence 95, Application US/10210120
Publication No. US20030175736A1
GENERAL INFORMATION:
APPLICANT: Chinnaiyan, Arul M.
APPLICANT: Rubin, Mark A.
APPLICANT: Sreekumar, Arun
TITLE OF INVENTION: Expression Profile of Prostate Can
FILE REFERENCE: UM-07221
CURRENT APPLICATION NUMBER: US/10/210,120
CURRENT FILING DATE: 2002-08-01
PRIOR APPLICATION UNMER: US 60/309,581
PRIOR FILING DATE: 2001-08-02
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US-10-210-120-95
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SOFTWARE: PatentIn version 3.2
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                                    AAGGAAAAATATAAAGAACTCACCGAACAGCAGCTCCCAGGCGCACTTCCTCCTGAATGT
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                                                    ATGTTTAGTTCCAATCGTCAGAAAATTTTGGAAAGAACGGAAATCTTAAACCAAGAATGG
                                                            MetPheSerSerAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnGluTrp
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APPLICANT: Rubin, Mark A.
APPLICANT: Chinnaiyan, Arul M.
APPLICANT: Laxman, Bharathi
APPLICANT: Sreekumar, Arun
TITLE OF INVENTION: AMACR Cancer Markers
FILE REFERENCE: UM-09098
CURRENT FILING DATE: 2004-07-30
NUMBER OF SEQ ID NOS: 123
SOFTWARE: Patentin version 3.2
SEQ ID NO 95
LENGTH: 2512
TYPE: DNA
CORGANISM: Homo sapiens
US-10-909-035-95
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Publication No. US20050136493A1
GENERAL INFORMATION:
MetGlyGlnThrGlyLysLysSerGluLysGlyProValCysTrpArgLysArgValLys
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1149 GATROGGAAGCAGGACTGAAACCGGGGGGAGAACAATGATAAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAG	8 6 1 2 2 1 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 2 1 2 2 2 1 2 2 2 1 2 2 2 1 2 2 2 1 2 2 2 1 2 2 2 1 2 2 2 2 1 2	
RESULT 14 US-10-104-047-1192 ; Sequence 1192, Application US/10104047 ; Publication No. US20030336392A1 ; GENERAL INFORMATION: APPLICANT: HELIX RESEARCH INSTITUTE ; TITLE OF INVENTION: No. US20030236392A1e1 full length cDNA ; FILE REFERENCE: H1-A0105 ; CURRENT APPLICATION NUMBER: US/10/104,047 ; CURRENT FILING DATE: 2002-03-25	Db 1229 ANACHTCHATTGCCCATTACTTATGALATTCTCTGCCATTCCTTGCTTATTATTGCACC 1388 461 Werth-Cycargollavilly colleges of the 1614 Activation of the 1229 ANACHTCHACHTCHACACTTATGACTTCAGACTTATGACTTAGACTAGAC	

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696 AAGGAAAAATATAAAGAACTCACCGAACAGCAGCTCCCAGGCGCACTTCCTCCTGAATGT 755 261 ThrProAsnIleAspGlyProAsnAlaLysSerValGlnArgGluGlnSerLeuHisSer 280		sAspLeuGluAspHi AGATCTGGAGGATCA	≨ <u>_</u> 5	161 ArgGluCy8GlyPheIleAsnAspGluIlePheValGluLeuValAsnAlaLeuGlyGln 180	141 GlnaspGlyThrPheIleGluGluLeuIleLysasnTyraspGlyLysValHisGlyAsp 160 	121 MetValGluAspGluThrValLeuHisAsnIleProTyrMetGlyAspGluValLeuAsp 140 	101 LeuAsnAlaValAlaSerValProIleMetTyrSerTrpSerProLeuGlnGlnAsnPhe 120	AGGGAGAGGGAGAGGGAG	LysGlnArgArgIleGlnProValHisIleLeuThrSerValSerSerLeuArgGlyThr	41 MetPheSerSerAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnGluTrp 60 	21 SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgAlgAlgAspGluValLysSer 40 	1 MetGlyGlnThrGlyLysSerGluLysGlyProValCysTrpArgLysArgValLys 20	Indels: Gaps:)-104-047-1192 (1-2476)	NO.: 0 NO.: 2476 NO.: 3812.50 Matches: 706 nt Similarity: 94.6% Conservative: 0 Local Similarity: 94.6% Mismatches: 1	ORGANISM: Homo sapiens -10-104-047-1192	SOPTWARE: Patentin Ver. 2.1 SEQ ID NO 1192 LENGTH: 2476 TYPE: DNA	APPLICATION NUMBER: FILING DATE: R OF SEO ID NOS: 4096
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1776 TGCAAGAACTGCAGTATTCAGCGGGGCTCCAAAAAGCATCTATTGCTGGCAGCACCATCTGAC 1835 621 ValAlaGlyTrpGlyIlePheIleLy8AspProValGlnLy8AsnGluPheIleSerGlu 640 	1716 GACCCTGACCTCTGTCTTACTTGTGGAGCCGCTGACCATTGGGACAGTAAAAATGTGTCC 601 CYSLY8ASnCY8SerIleGlnArgGlYSerLy8LY8H18LeuLeuLeuAlaProSerA8p	1656 CGCTGCAAAGCACAGTGCAACACCAAGCAGTGCCCGTGCCTACCTGGCTGTCCGAGAGTGT 171: 581 AspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAspSerLysAsnValSer 600		521 GlnProCysAspHisProArgGlnProCysAspSerSerCysProCysValiIeAlaGln 540	501 AlaHisCyBArgLysIleGInLeuLysLysAspGlySerSerAsmHisValTyrAsmTyr 520 	481 FTOALEGUMABPURIFFOFFONTON TO THE PROPERTY OF THE PROPERTY	1356 AAAACATGTAGACAGGTGTATGAGTTTAGAGTCAAAGAATCTAGCATCATAGCTCCAGCT 141	1296 AGAGTCCTCATTGGCACTTACTATGACAATTTCTGTGCCATTGCTAGGTTAATTTGGGACC				361 ABBSETSBRANGENOSETINTEROTHILLEABNYALLEGUSLUSETLYBABDINTABDSET 380	341 GluargileLyeThrProProLyeArgProGlyGlyArgArgArgGlyArgLeuProAsm 360	321 GlyProGlnCysTyrGlnHisLeuGluGlyAlaLysGluPheAlaAlaAlaLeuThrAla 340 	301 AlaThrProAsnThrTyrLysArgLysAsnThrGluThrAlaLeuAspAsnLysProCys 320 	281 PheHisThrLeuPheCysArgArgCysPheLysTyrAspCysPheLeuHisProPheHis 	

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APPLICANT:
APPLICANT: HIO, YURI
APPLICANT: OTSUKA, KAORU
APPLICANT: NAGAI, KEIICHI
APPLICANT: IRIE, RYOTARO
APPLICANT: TAMECHIKA, ICHIRO
APPLICANT: TAMECHIKA, ICHIRO
APPLICANT: OTSUKA, MOTOYUKI
APPLICANT: WASUHO, YASUHIKO
APPLICANT: WASUHO, YASUHIKO
TITLE OF INVENTION: NOVel full length cDNA
FILE REFERENCE: 084335-0191
CURRENT APPLICATION NUMBER: US/11/072,512
CURRENT FILING DATE: 2005-03-07
PRIOR APPLICATION NUMBER: US 60/350,978
PRIOR FILING DATE: 2002-01-25
PRIOR APPLICATION NUMBER: US 60/350,978
PRIOR APPLICATION NUMBER: JP 2001-379298
PRIOR PILING DATE: 2001-11-05
NUMBER OF SEQ ID NOS: 4096
SOFTWARE: PATENTIN VET. 2.1
SEQ ID NO 1192
LENGTH: 2476
TYPE: DNA
ORGANISM: Homo Bapiens
US-11-072-512-1192
                                                                                                                                                                                                                                                                                                                                                                                             Sequence 1192, Application US/11072512
Publication No. US20060029945A1
GENERAL INFORMATION:
APPLICANT: ISOGAI, TAKAO
APPLICANT: SUGIYAMA, TOMOVASU
APPLICANT: SUGIYAMA, TOMOVASU
APPLICANT: WAKAMATSU, AI
APPLICANT: WAKAMATSU, AI
APPLICANT: SATO, HIROVUKI
APPLICANT: SATO, HIROVUKI
APPLICANT: ISHII, SHIZUKO
APPLICANT: ISHII, SHIZUKO
APPLICANT: TOSUKA, KAGRU
APPLICANT: OTSUKA, KAGRU
APPLICANT: OTSUKA, KAGRU
APPLICANT: NAGAI, KEIICHI
APPLICANT: NAGAI, KEIICHI
APPLICANT: TAMECHIKA, ICHIRO
APPLICANT: TAMECHIKA, ICHIRO
APPLICANT: TAMECHIKA, ICHIRO
APPLICANT: SEKI, NAGHIKO
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                GluArgIleLysThrProProLysArgProGlyGlyArgArgArgGlyArgLeuProAsn 360
                                                     GlyProGlnCysTyrGlnHisLeuGluGlyAlaLysGluPheAlaAlaAlaLeuThrAla 340
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20	O16 GGIAACAAAAITCGITIIGGAAAICAITCGGIAAAICCAAACIGCIAIGGAAAI 701 MetValAsnGlyAspHisArgIleGlyIlePheAlaLysArgAlaIleGlnTh
700	681 GlyAsnLysIleArgPheAlaAsnHisSerValAsnProAsnCysTyrAlaLysValMet
680 2015	661 TyrMetCysSerPheLeuPheAsnLeuAsnAsnAspPheValValAspAlaThrArgLys
660	641 TyrCybGlyGluIleIleSerGlnAspGluAlaAspArgArgGlyLysValTyrAspLyb
1955	
640	621 ValalaGlyTrpGlyIlePheIleLysAspProValGlnLysAsnGluPheIleSerGlu
1895	
620	601 CysLybAbnCybSerIleGlnArgGlySerLybHisLeuLeuLeuAlaProSerAsp
1835	
600	581 ABPProAspLeuCysLeuThrCysGlyAlaAlaABpHisTrpAspSerLysAsnValSer
1775	
580	561 ArgCyblysAlaGlnCybAsnThrLysGlnCybProCybTyrLeuAlaValArgGluCyb
1715	
560	541 AsnPheCysGluLysPheCysGlnCysSerSerGluCysGlnAsnArgPheProGlyCys
1655	
540	521 GlnProCysAspHisProArgGlnProCysAspSerSerCysProCysVallleAlaGln
1595	
520	501 AlaHiBCYBATGLYBIleGlnLeuLyBLYBASpGlYSerSerABnHiBValTyrABnTyr
1535	
500	481 ProAlaGluagpValagpThrProProArgLygLygLygArgLygHigArgLeuTrpAla
1475	
480	461 LysThrCysArgGlnValTyrGluPheArgValLysGluSerSerIleIleAlaBroAla
1415	
460 1355	41
440 1295	421 LysProAsnIleGluProProGluAsnValGluTrpSerGlyAlaGluAlaSerMetPhe
420 1235	401 LysaspoluThrSerSerSerGluAlaAsnSerArgCysGlnThrProIleLysMet
400 1175	381 AspargGlualaGlyThrGluThrGlyGlyGluAsnasnaspLysGluGluGluGluGluGluLys
380	361 AsnSerSerArgProSerThrProThrTleAsnValLeuGluSerLysAspThrAspSer

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741 ArgGluMetGluIlePro 746	721 GluLeuPhePheAspTyrArgTyrSerGlnAlaAspAlaLeuLysTyrValGlyIleGlu 740

Search completed: August 13, 2006, 18:01:21 Job time : 2236.12 secs

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-Q=/abse/ABSSWEB spool/US10773302/runat_11082006_140243_16928/app_query.fasta_1
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-DB=Published Applications NA New -QFMT=fastap -SUFFIX=p2n.rnpbn -MINNATCH=0.1
-LOOPCI=0 -LOŌPEXT=0 -UNITS=bits -START=1 -END=-1 -MATRIX=blosum62
-TRANS=human40.cdi -LIST=45 -DOCALICN=200 -THR SCORE=pct -THR MAX=100
-THR MIN=0 -ALIGN=15 -MODE=LOCAL -OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0
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-USER=US10773302 @CCM 1 1 430 @runat 11082006 140243 16928 -NCPU=6 -TCPU=3
-NO MMAP -NEG SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG -DEV_TIMEOUT=120
-WARN TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=7
-YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
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Match
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1: /EMC Celerra SIDS3/ptodata/2/pubpna/US06 NEW PUB.seq:*

2: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US06 NEW PUB.seq:*

3: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US09 NEW PUB.seq:*

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US-10-539-630-3

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US-11-266-748A-259286

US-11-266-748A-278870

US-11-266-748A-319803
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ALIGNMENTS

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Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                        ; TYPE: DNA
; ORGANISM: Human
US-10-539-630-2
                                                 US-10-773-302-2 (1-746) x US-10-539-630-2 (1-2253)
                                                                                                                                                Score:
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Pred. No.:
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US-10-539-630-2
                                                                                                                                                                                                                                                PRIOR FILING DATE: 2002-1
NUMBER OF SEQ ID NOS: 14
SEQ ID NO 2
LENGTH: 2253
                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2, Application US/10539630
Publication No. US20060104981A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                     FILE REFERENCE: 3130WOOP
CURRENT APPLICATION NUMBER: US/10/539,630
CURRENT FILING DATE: 2005-06-17
                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: JP2002-373144
                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Takeda Chemical Industries, Ltd. TITLE OF INVENTION: Preventing and treating
1 MetGlyGlnThrGlyLysSerGluLysGlyProValCysTrpArgLysArgValLys
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456 ArgueuilegiythriysthrcysArgGinValTyrGubheArgValiysGiuserSer 475 	GIMALASELMELFILENS VALLEULIEUTYIII IVI YARDAMIFIREVYRALGITEATA (Thread large tyserols of the control	3/6 Lybhapinrabbetrabargetuhladelyinrentnitelyetyetyetuhanabhuye 393 1263 AAGGATACAGACAGTGATAGGGAAGCAGGGACTGAAACGGGGGGAGAGAACAATGATAAA 1322 1264 GluGluGluGluGluGrafagaaGGluThrSerserSerSerGluAlaAsgSerArgCysGlu 415	GJARGLeurroAsmAsmaerserArgrioserIntroIntileAsmValleurluser s	AlaalaLeuThralaGluArgIleLysThrProProLysArgProGlyGlyArgArgArg	316 AspAsnLysProCysGlyProGlnCysTyrGlnHisLeuGluGlyAlaLysGluPheAla 335 	298ProPheHiBAlaThrProAsnThrTyrLysArgLysAsnThrGluThrAlaLeu 315	281 PheHisThrLeuPheCysArgArgCysPheLysTyrAspCysPheLeuHis 297	261 ThrProAsmIleAspGlyProAsmAlaLysSerValGlnArgGluGlnSerLeuHisSer 280	241 LysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuProProGluCys 260	221 ABPLYBI1ePheGluAlaI1eSerSerMetPheProABPLYBGlyThrAlaGluGluLeu 240 	201 LysaspLeuGluaspHisargAspAspLysGluSerArgProProArgLysPheProSer 220 	181 TyrAsnAspAspAspAspAspAspAspAspBspProGluGluArgGluGluLysGln 200 	161 ArgGluCy8GlyPheIleAsnAspGluIlePheValGluLeuValAsnAlaLeuGlyGln 180 	141 GlnAspGlyThrPheIleGluGluLeuIleLysAsnTyrAspGlyLysValHisGlyAsp 160 	ATGGTGGAAGATGAAACTGTTTTACATAACATTCCTTATATGGGAGATGAAGTTTTAGAT	423 CTGAATGCAGTTGCTTCAGTACCCATAATGTATTCTTGGTCTCCCCTACAGCAGAATTTT 482 121 MetValGluAspGluThrValLeuHisAsnIleProTyrMetGlyAspGluValLeuAsp 140

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RESULT 3
US-10-539-630-3
US-10-539-630-3
Sequence 3, Application US/10539630
Publication No. US20060104981A1
GENERAL INFORMATION:
APPLICANT: Takeda Chemical Industries, Ltd.
TITLE OF INVENTION: Preventing and treating agent for FILE REFERENCE: 3130WOOP
CURRENT APPLICATION NUMBER: US/10/539,630
CURRENT FILING DATE: 2005-06-17
PRIOR APPLICATION NUMBER: JP2002-373144
PRIOR FILING DATE: 2002-12-24
NUMBER OF SEQ ID NOS: 14
SEQ ID NO 3
SEQ ID NO 3
LENGTH: 2695
TYPE: DNA
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; SOPTWARE: PatentIn version 3
; SEQ ID NO 29501
; EERGTH: 2695
; TYPE: DNA
; ORGANISM: Homo Sapiens
US-11-266-748A-29501
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APPLICANT: Mulligan, Karl
ITITLE OF INVENTION: Transcriptome Microarray Technology and
ITITLE OF INVENTION: Methods of Using the Same
FILE REFERENCE: 55815-0102 (319189)
CURRENT APPLICATION NUMBER: US/11/266,748A
CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: EP 04105479.2
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.9
PRIOR APPLICATION NUMBER: EP 04105485.9
PRIOR APPLICATION NUMBER: EP 04105486.9
PRIOR PILING DATE: 2004-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: BP 04105484.2
PRIOR APPLICATION NUMBER: US 60/562,276
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: US 60/700,293
PRIOR PILING DATE: 2005-07-18
PRIOR PILING DATE: 2005-07-18
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APPLICANT: Johnston, P
SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArgAlaAspGluValLysSer 40
                                                                                            MetGlyGlnThrGlyLysLysSerGluLysGlyProValCysTrpArgLysArgValLys
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TITLE OF INVENTION: Transcriptome Microarray Technology and TITLE OF INVENTION: Methods of Using the Same FILE REFERENCE: 55815-0102 (319189)
CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: EP 04105479.2
PRIOR RAPPLICATION NUMBER: EP 04105482.6
PRIOR RILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR RILING DATE: 2004-11-03
PRIOR RAPPLICATION NUMBER: EP 04105483.4
PRIOR RAPPLICATION NUMBER: EP 04105483.4
PRIOR RAPPLICATION NUMBER: EP 04105483.9
PRIOR RILING DATE: 2004-11-03
PRIOR FILING DATE: 2004-11-03
PRIOR FILING DATE: 2004-11-03
PRIOR RAPPLICATION NUMBER: EP 04105485.9
PRIOR RAPPLICATION NUMBER: EP 04105484.2
PRIOR RAPPLICATION NUMBER: EP 04105484.2
PRIOR RAPPLICATION NUMBER: US 60/662,276
PRIOR RAPPLICATION NUMBER: US 60/662,276
PRIOR FILING DATE: 2005-07-18
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, NAME/KEY: misc feature
; LOCATION: (1792)..(1792)
; OTHER INFORMATION: n is
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Publication No. US20060134663A1
GENERAL INFORMATION:
APPLICANT: Harkin, Paul
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NAME/KEY: misc_feature
LOCATION: (1680)..(1680)
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ORGANISM: Homo Sapiens
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NAME/KEY: misc feature
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NAME/KEY: misc_feature
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                                                                       VallysGluSerSerIleIleAlaProAlaProAlaGluAspValAspThrProProArg
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                                                                                                                                                    PheCysAlaIleAlaArgLeuIleGlyThrLysThrCysArgGlnValTyrGluPheArg
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APPLICANT: Johnston, Patrick
APPLICANT: Mulligan, Karl
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CURRENT FILING DATE: 2004.11-03
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR APPLICATION NUMBER: EP 04105507.0
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105485.9
PRIOR APPLICATION NUMBER: EP 04105484.2
PRIOR APPLICATION NUMBER: BP 04105484.2
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PRIOR PILING DATE: 2004-11-03
PRIOR PILING DATE: 2005-03-14
PRIOR APPLICATION NUMBER: US 60/662,276
PRIOR FILING DATE: 2005-07-18
NUMBER OF SEQ ID NOS: 483996
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LENGTH: 1803
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APPLICANT: Johnston, F
APPLICANT: Mulligan, K
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                                         AlaLysGluPheAlaAlaAlaLeuThrAlaGluArgIleLysThrProProLysArgPro
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US-11-266-748A-319803/c
; Sequence 319803, Application US/11266748A
; Publication No. US20060134663A1
; GENERAL INFORMATION:
; APPLICANT: Harkin, Paul
; APPLICANT: Johnston, Patrick
; APPLICANT: Mulligan, Karl
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Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: misc_feature; LOCATION: (124)...(124); OTHER INFORMATION: n is FEATURE; MAME/KEY: misc_feature; LOCATION: (1425)...(1448); OTHER INFORMATION: n is US-11-266-748A-319803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FITILE OF INVENTION: Transcriptome Microarray Technology and TITILE OF INVENTION: Methods of Using the Same FILE REFERENCE: 55815-0102 (319189)

CURRENT APPLICATION NUMBER: US/11/266,748A

CURRENT FILING DATE: 2005-11-03

PRIOR APPLICATION NUMBER: BP 04105479.2

PRIOR FILING DATE: 2004-11-03

PRIOR APPLICATION NUMBER: BP 04105482.6

PRIOR APPLICATION NUMBER: BP 04105483.4

PRIOR PILING DATE: 2004-11-03

PRIOR PILING DATE: 2004-11-03

PRIOR PILING DATE: 2004-11-03

PRIOR PILING DATE: 2004-11-03

PRIOR APPLICATION NUMBER: BP 04105483.4

PRIOR APPLICATION NUMBER: BP 04105484.9

PRIOR APPLICATION NUMBER: BP 04105484.2

PRIOR PILING DATE: 2004-11-03

PRIOR APPLICATION NUMBER: BP 04105484.2

PRIOR PILING DATE: 2004-11-03

PRIOR APPLICATION NUMBER: US 60/662,276

PRIOR PILING DATE: 2005-03-14

PRIOR APPLICATION NUMBER: US 60/700,293

PRIOR PILING DATE: 2005-07-18

NUMBER OF SEO ID NOS: 483996
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ORGANISM: Homo Sapiens
PEATURE:
NAME/KEY: misc_feature
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OTHER INFORMATION: n is
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TrpArgLysArgValLysSerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArg

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APPLICANT: HAVENING, Paul
APPLICANT: Mulligan, Karl
APPLICANT: Mulligan, Karl
TITLE OF INVENTION: Transcriptome Microarray Technology and
TITLE OF INVENTION: Methods of Using the Same
FILTE OF INVENTION: Methods of Using the Same
FILTE REFERENCE: 55815-0102 (319189)
CURRENT APPLICATION NUMBER: US/11/266,748A
CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: EP 04105482.6
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR APPLICATION NUMBER: EP 04105483.9
PRIOR APPLICATION NUMBER: EP 04105485.9
PRIOR APPLICATION NUMBER: EP 04105485.9
PRIOR APPLICATION NUMBER: EP 04105486.2
PRIOR APPLICATION NUMBER: EP 04105484.2
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: US 060/662,276
PRIOR APPLICATION NUMBER: US 60/662,276
PRIOR APPLICATION NUMBER: US 60/700,293
PRIOR APPLICATION NUMBER: US 60/700,293
PRIOR APPLICATION NUMBER: US 60/700,293
PRIOR APPLICATION NUMBER: US 60/700,293
PRIOR FILING DATE: 2005-07-18
NUMBER OF SEQ ID NOS: 483996
SOPTMARS: Patentin version 3.3
SEQ ID NO 62177
LENGTH: 4606
                                              Percent Similarity:
Best Local Similarity:
Query Match:
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                                                                                                                      Alignment Scores: Pred. No.:
                                                                                                                                                                         ; TYPE: DNA
; ORGANISM: Homo Sapiens
US-11-266-748A-62177
US-10-773-302-2
                                                                                                         Score:
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Matches:
Conservative:
Mismatches:
Indels:
Gaps:
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ફ	음 성	B &	B 8	용 성	B &	용 성	B 8	B 8	B 8	₽ &	용 성	당 성	B 8	유 왕	8 8	B 8	유 왕	дb
358 LeuProAsnAsnSerSerArgProSerThrProThrIleAsnValLeuGluSerLys 376	338 LeuThrAlaGluArgIleLysThrProProLysArgProGlyGlyArgArgArgGlyArg 357 :::	318 LysProCysGlyProGlnCysTyrGlnHisLeuGluGlyAlaLysGluPheAlaAlaAla 337 :::	298 ProPheHisAlaThrProAsnThrTyrLysArgLysAsnThrGluThrAlaLeuAspAsn 317 	278 LeuhisSerPhehisThrLeuPheCysArgArgCysPheLysTyrAspCysPheLeuhis 297 	258 ProGluCysThrProAsnIleAspGlyProAsnAlaLysSerValGlnArgGluGlnSer 277 :::	238 GluGluLeuLysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuPro 257 ::::::: :::	218 PheProSerAspLysIlePheGluAlaIleSerSerMetPheProAspLysGlyThrAla 237 ::: ::: ::: 791 TTCCCAAATGACATGATCTTCAGTGCAATTGCCTCAATGTTCCCTGAGAAATGGTGTCCCA 850	198 GluLysGlnLysAspLeuGluAspHisArgAspAspLysGluSerArgProProArgLys 217 :::	186	170 IlePheValGluLeuValAsnAlaLeuGlyGlnTyrAsnAspAspAsp 185	154 AspGlyLysValHisGlyAspArgGlu	134 MetGlyAspGluValLeuAspGlnAspGlyThrPheIleGluGluLeuIleLysAsmTyr 153 ::::::	114 SerProLeuGlnGlnAsnPheMetValGluAspGluThrValLeuHisAsnIleProTyr 133 	94 GlnValIleProLeuLysThrLeuAsnAlaValAlaSerValProIleMetTyrSerTrp 113 ::: :::::::	75 SerSerLeuArgGlyThrArgGluCysSerValThrSerAspLeuAspPheProThr 93	55 IleLeuAsnGlnGluTrpLysGlnArgArgIleGlnProValHisIleLeuThrSerVal 74 ::: ::: 263 ATCCTCAATGAAGAATGGAAGCTTCGTGTCCAACCTGTTCAGTCAATGAAGCCTGTG 322	35 AlaAspGluValLysSerMetPheSerSerAsnArgGlnLysIleLeuGluArgThrGlu 54 :::: ::: ::: ::: 203 AATATGGGTGCAAAGGCTTTGTATGTGGCAAATTTTGCAAAGGTTCAAGAAAAAACCCAG 262	:::::::
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Oy 15 TrpArgLysArgValLysSerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArg 34	Gapanism: Homo Sapiens US-11-266-748A-26094 Alignment Scores: Pred. No.: Score: Pred. No.: 2603.50 Score: Percent Similarity: 76.8\$ Best Local Similarity: 64.6\$ Query Match: Gaps: Gaps: 10	PRIOR FILING DATE: 2004-11-03 PRIOR APPLICATION UNMERS: US 60/662,276 PRIOR FILING DATE: 2005-03-14 PRIOR FILING DATE: 2005-07-18 PRIOR FILING DATE: 2005-07-18 NUMBER OF SEQ ID NOS: 483996 SOPTWARE: Patentin version 3.3 SEQ ID NO 26094 PLENGTH: 4640 TYPE: DNA	PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR	CANT: Harkin, Paul CANT: Johnston, Patrick CANT: Mulligan, Karl CANT: Mulligan, Karl OF INVENTION: Transcriptome Micr OF INVENTION: Methods of Using REPERENCE: 55815-0102 (31918) NT APPLICATION NUMBER: US/11/266, NT FILING DATE: 2005-11-03	TyrserGl acagcca a-26094 a-2
5	B & B & B &	B Q B Q	P Q B Q B Q	p	D Q D D
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RESULT 10
US-11-266-748A-186457/c
; Sequence 186457, Application US/11266748A
; Publication No. US/20060134663A1
; GENERAL INFORMATION:
; GENERAL INFORMATION:
APPLICANT: Johnston, Patrick
APPLICANT: Mulligan, Karl
TITLE OF INVENTION: Transcriptome Microarray Technology
TITLE OF INVENTION: Methods of Using the Same
FILE REFERENCE: 55815-0102 (319189)
CURRENT FAPLICATION NUMBER: US/11/266,748A
CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: EP 04105479.2
PRIOR FILING DATE: 2004-11-03
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PRIOR PILING DATE: 2004-11-03
PRIOR PELLICATION NUMBER: EP 04105483.4
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105507.0
PRIOR PILING DATE: 2004-11-03
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PRIOR PILING DATE: 2005-03-14
PRIOR APPLICATION NUMBER: US 60/662,276
PRIOR PILING DATE: 2005-03-14
PRIOR PILING DATE: 2005-07-18
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US-10-773-302-2 (1-746) x US-11-266-748A-241375 (1-2074) Qy	Alignment Scores: Pred. No.: 1817.50 Score: Percent Similarity: 55.3% Best Local Similarity: 7 Query Match: 8 4.07e-144 Length: Antches: 369 Conservative: 1 Mismatches: 7 Query Match: 8 Gaps: 2074 Matches: 369 Conservative: 1 Gaps: 203 DB:	Db 399 TATTTTTGCCATCGTTGGAAACCGGAATATGTTATGCATTCAGTAAGGC 330 Qy 510

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PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105484.2
PRIOR APPLICATION NUMBER: US 60/662,276
PRIOR APPLICATION NUMBER: US 60/662,276
PRIOR PILING DATE: 2005-03-14
PRIOR APPLICATION NUMBER: US 60/700,293
PRIOR APPLICATION NUMBER: US 60/700,293
PRIOR PILING DATE: 2005-07-18
NUMBER OF SEQ ID NOS: 483996
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; LOCATION: (468)..(468)
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APPLICATION NUMBER: EP 04105483.4
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           APPLICANT: Johnston, Patrick
APPLICANT: Mulligan, Karl
ITIES OF INVENTION: Transcriptome Microarray Technology
TITIE OF INVENTION: Methods of Using the Same
FILE REFERENCE: 55815-0102 (319189)
CURRENT APPLICATION NUMBER: US/11/266,748A
CURRENT FILLING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: EP 04105479.2
PRIOR APPLICATION NUMBER: EP 04105482.6
                                                                                                                                         APPLICANT: Harkin, Paul
APPLICANT: Johnston, P.
APPLICANT: Mulligan, K
FILING DATE: 2004-11-03
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                                                                                                                                                                                                                                                                                     TGGGCAGAAAATGGATT--CTCTCAAAATACTGGGGGAAGATTATTTTCTCCAGATGAA
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PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR FILING DATE: 2004-11-03
PRIOR FILING DATE: 2004-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105484.2
PRIOR APPLICATION NUMBER: EP 04105484.2
PRIOR PILING DATE: 2004-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR PILING DATE: 2005-03-14
PRIOR APPLICATION NUMBER: US 60/662,276
PRIOR PILING DATE: 2005-03-14
PRIOR APPLICATION NUMBER: US 60/700,293
PRIOR PILING DATE: 2005-07-18
PRIOR PILING DATE: 2005-07-18
SEQ ID NO 151399
LENGTH: 1140
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Best Local Similarity:
Query Match:
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ORGANISM: Homo Sapiens
FEATURE:
NAME/KEY: misc feature
LOCATION: (673)..(673)
OTHER INFORMATION: n is a
FEATURE:
NAME/KEY: misc feature
LOCATION: (774)..(774)
OTHER INFORMATION: n is a
FEATURE:
NAME/KEY: misc feature
LOCATION: (775)..(779)
OTHER INFORMATION: n is a
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NAME/KEY: misc feature
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OTHER INFORMATION: n is a
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NAME/KEY: misc feature
LOCATION: (972)..(972)
OTHER INFORMATION: n is a
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     GAATCAAAGGATACAGACAGTGATAGGGAAGCAGGGACT
                                                                         ArgArgGlyArgLeuProAsnAsnSerSerArgProSerThrProThrIleAsnValLeu
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APPLICANT: Harkin, Paul
APPLICANT: Johnston, Patrick
APPLICANT: Mulligan, Karl
TITLE OF INVENTION: Transcriptome Microarray Technology and
TITLE OF INVENTION: Methods of Using the Same
FILE REFERENCE: 55815-0102 (319189)
CURRENT APPLICATION NUMBER: US/11/266,748A
CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: EP 04105479.2
FRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105482.6
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR FILING DATE: 2004-11-03
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PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR FILING DATE: 2004-11-03
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LysHisLeuLeuAlaProSerAspValAlaGlyTrpGlyIle-PheIleLysAspPr
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                                                                                                                                                          GACCATTGGNACAGTAAAAATGTGTCCTGCAAGAACTGCAGTATTCAGCGGGGCTCCAA-
                                                                                                                                                                           AspHisTrpAspSerLysAsnValSerCysLysAsnCysSerIleGlnArgGlySerLys
                                                                                                                                                                                                                           GAGTGTCAAAAACCGCTTTCCGGGATGCCGCTGCAAAGCACAGTGCAACACCCAAGCAGTGC
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; LOCATION: (251)..(251)
; OTHER INFORMATION: n is
US-11-266-748A-175796
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PRIOR APPLICATION NUMBER: ED 04105485.9
PRIOR APPLICATION NUMBER: ED 04105484.2
PRIOR FILING DATE: 2004-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR PPLICATION NUMBER: US 60/662,276
PRIOR FILING DATE: 2005-03-14
PRIOR APPLICATION NUMBER: US 60/700,293
PRIOR APPLICATION NUMBER: US 60/700,293
PRIOR FILING DATE: 2005-07-18
PRIOR APPLICATION NUMBER: US 60/700,293
PRIOR FILING DATE: 2005-07-18
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SEQ ID NO 175796
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NAME/KEY: misc feature
'COATION: (212)...(212)
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erAspLysIlePhe-GluAlaIleSerSer-MetPhePro-AspLysGlyThrAla-Glu
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 APPLICANT: Harkin, Paul
APPLICANT: Miligan, Karl
APPLICANT: Miligan, Karl
TITLE OF INVENTION: Transcriptome Microarray Technology and
TITLE OF INVENTION: Methods of Using the Same
TITLE OF INVENTION: Methods of Using the Same
TITLE OF INVENTION: Methods of Using the Same
TITLE OF INVENTION: Methods of Using the Same
TILE REFERENCE: 55815-0102 (319189)
CURRENT APPLICATION NUMBER: US/11/266,748A
CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: EP 04105479.2
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105482.6
PRIOR FILING DATE: 2004-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR FILING DATE: 2004-11-03
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US-11-266-748A-361225/c
; Sequence 361225, Application US/11266748A
; Publication No. US20060134663A1
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Query Match:
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PRIOR FILING DATE: 2004-11-03
PRIOR PPLICATION NUMBER: EP 04105485.9
PRIOR PRIOR PLILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105484.2
PRIOR PILING DATE: 2004-11-03
PRIOR PILING DATE: 2005-03-14
PRIOR PRIOR APPLICATION NUMBER: US 60/662,276
PRIOR PILING DATE: 2005-07-16
PRIOR PILING DATE: 2005-07-16
NUMBER OF SEQ ID NOS: 483996
SOPTWARE: PATENTIN VERSION 3.3
SEQ ID NO 361225
LENGTH: 904
TYPE: DNA
ORGANISM: Homo Sapiens
PEATURE:
NAME/KEY: misc feature
LOCATION: (30)...(30)
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GluGluGluLysLysAspGluThrSerSerSerGluAlaAsnSerArgCysGln 415
                                                                                        GACGGCTTCCCAATAACAGTAGCAGGCCCAGCACCCCCACCATTAATGTGCTGGAATCA
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	64 TGTCAAAAACCGCTTTTTTCCCGGGATGCCCGCTGNCAAAAGCACAGGTGCAAACA 10	рb
	553 CysGln-AsnArgPheProGlyCysArgCysLysAlaGlnCysAsnThr 568	Qy 5
65	124 CCTTTGTGTGATAGCACAAAAATTTTTGGTGAAAAAGTTTTGTCAATGGTAGTTTCAGAAG	Db 1
552	535 Pro-CysVallleAlaGlnAsnPheCysGluLysPheCysGlnCysSerSerGlu	Qy 5
125	184 CCATGTTTACAACCAACCCTGTGATCATCCACGGCAGCCTTGNTGACNAGTTCGTGC	Db 1
534	515 nHisValTyrAsnTyrGlnProCysAspHisProArgGlnPro-CysAsp-SerSerCys	Qy 5
185		Db 2
515	ysAspGlySerSerAs	Qy 4
245		Db 3
495	476 IleIleAlaProAlaProAlaGluAspValAspThrProProArgLysLysLysArgLys	Qy 4
305		Db 3
475	456 ArgLeulleGlyThrLysThrCysArgGlnValTyrGluPheArgValLysGluSerSer	Qy 4
365	424 GAAGCCTCAATGTTTAGAGTCCTCATTGGCACTTACTATGACAATTTCTGTGCCATTGCT	Db 4
455	436 GluAlaSerMetPheArgValLeuIleGlyThrTyrTyrAspAsnPheCysAlaIleAla	Qy 4
425	484 ACACCAATAAAGATGAAGCCAAATATTGAACCTCCTGAGAATGTGGAGTGGAGTGGTGCT	Db 4
435	416 ThrProIleLysMetLysProAsnIleGluProProGluAsnValGluTrpSerGlyAla	Qy 4
485		Db 5

Search completed: August 13, 2006, 16:57:59
Job time: 344.656 secs

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GenCore version 5.1.9

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Command line parameters:

-MODEL=frame+_p2n.model -DEV=xlh
-Q=/abss/ABSWEB_spool/US10773302/runat_11082006_140223_16618/app_query.fasta_1
-Q=/abss/ABSWEB_spool/US10773302/runat_11082006_140223_16618/app_query.fasta_1
-DB=GenEmbl -OFWT=fastap -SUFFIX=p2n.rge -MINMATCH=0.1 -LOOPCL=0 -LOOPEXT=0
-UNITS=bite -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45
-DCCALIGN=200 -THR_SCORE=pct -THR MAX=100 -THR MIN=0 -ALICN=15 -MODE=LOCAL
-OUTEMT=pto -NORM=ext -HEADSIZE=500 -MINLEN=0 -MAXLEN=2000000000 -HOST=abss04
-USER=US10773302_@CGN 1_1_13924_@runat_11082006_140223_16618 -NCPU=6 -ICPU=3
-NO_MMAP -NEG_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG -DEV_TIMEOUT=120
-MARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6 -FGAPEXT=7
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A58329 Sequence 1
AR473734 Sequence
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54.7	60.6	62.0	62.1	•	62.6	٠	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	68.9	75.2	81.9	82.4	90.7	•	•	93.2	93.6	93.7	93.7	٠	•	•	•	•	98.6	•	٠	99.5	۰	99.8	٠	9		100.0
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ALIGNMENTS

ORIGIN			source	FEATURES		JOURNAL				AUTHORS	REFERENCE		_		ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION	DEFINITION	Locus	CQ714720	RESULT 1
/m_xxer=_raxon;3000;	/mol_type="unassigned DNA"	/organism="Homo sapiens"	12511	Location/Qualifiers	PB Corporation (NY) (US)	Patent: WO 02068579-A 654 06-SEP-2002;	thereof	THE PROPERTY OF THE PROPERTY O	kits such as nucleic acid arrays, comprising a majority of	Venter, C.J., Adams, M.C., Li, P.W. and Myers, E.W.	L .	Hominidae; Homo.	Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	Homo sapiens	Homo sapiens (human)		CQ714720.1 GI:42275577	CQ714720	Sequence 654 from Patent WO02068579.	CQ714720 2511 bp DNA linear PAT 03-FEB-2004		

Alignment Scores:

Freed. No.: 2002.00 Liength: 2511 2002.01 Saccies Similarity: 100.00 Matches: 699 Perset Local Similarity: 100.00 M
Qy 321 Qy 341 Db 1030 Qy 361 Db 1090 Qy 381 Qy 381 Db 1150 Qy 401 Db 1210 Qy 421 Db 1270 Qy 441 Db 1330 Qy 461 Db 1450 Qy 501 Db 1630 Qy 561 Db 1810 Qy 601 Db 1870 Qy 661 Db 1870 Qy 621 Db 1870 Qy 641 Db 1930 Qy 661 Db 1930 Qy 661 Db 1930 Qy 661 Db 1930
311 GlyProdincysTyrcOlnHistencolugiyalalysclubhealaalaalaalaalaalaalaalaalaalaalaalaala

OY 1 MetGlyGlnThrGlyLysLysSerGluLysGlyProValCysTrpArgLysArgValLys 20	Alignment Scores: Pred. No.: Score: Score: Percent Similarity: 100.0% Conservative: 0 Best Local Similarity: 100.0% Mismatches: 0 Query Match: 100.0% Indels: 0 DB: Gaps: 0	æ	AVASVPIMYSWSPLQQNEMVEDETVLHNI PYMGDEVLDODGTF I BELI KNYDGKYHGD RECGF INDE I FVELVNALGQYNDDDDDDDDDDDEDDFEREKGKDEDHRDDKSSRPPRKF PSDKI FEAI SSWEPDKGTABELKEKYKELTEQQLEGALEBECTENI DGPNAKSVQREQ SLHSFHTLFCRRCFKYDCFLHPFHATPNTYKRKNTETALDNKPCGPQCYQHLEGAKER AALTAER I KTP PKR PGGRERGEL PNNSSR PSTPTINVLESKOTDSDREAGTSTGEN NDKEEBEKKDETSSSSEANSRCQTF I KMKPNI E PPENVEWSGAEASMFRVLIGTYYDN FCAI ARLIGTKTCRQVYBFRVKEST I I APAPABDVDTPPRKKKKRHRHAMAHCRKLQL FCAI ARLIGTKTCRQVYBFRVKEST I I APAPABDVDTPPRKKKKHKHRAMAHCRKAQC KKDGSSNHVYNYQPCDHPRQPCDSSCPCVI AQNFCEKFCQCSSECQNR PPGCTCKAQC	CDS 902330 /note="unnamed protein product" /codon.start=1 /protein.id="CAAO3482.1" /protein.id="CAAO3482.1" /db_xref="GI:3713992" /translation="MGQTGKKSEKGPVCWRKRVKSEYMRLRQLKRFRRADEVKSMFSS NRQKILERTEILNQEWKQRRIQPVHILTSVSSLRGTRECSVTSDLDFPTQVIFLKTLN	. /d/d		-	SOURCE Homo sapiens (human) ORGANISM Homo sapiens (Chordata; Craniata; Vertebrata; Buteleostomi;	DEFINITION Sequence 1 from Patent WO9635784. ACCESSION A58329 VERSION A58329.1 GI:3713991	A58329 ,	Db 2050 GGTAACAAATTCGTTTTGCAAATCATTCGGTAAATCCAAACTGCTATGCAAAAGTT 2106
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SOURCE ORGANISM REFERENCE AUTHORS TITLE JOURNAL FEATURES FEATURES source	Qy 6 Qy 6 Db 21 RESULT 3 AR473734 LOCUS DEFINITION ACCESSION VERSION VERSION KEYWORDS		8 8 8 8 8		9 9 9 1 1 1 9 9 9 9 9 9 9 9 9 9 9 9 9 9
Unknown. Unknown. Unclassified. 1 (bases 1 to 2600) 1 (bases 1 to 2600) 1 (bases 1 to 2600) Chromatin regulator genes Patent: US 669583-A 1 10-FEB-2004; Bechringer Ingelheim International GmbH;; DEX; Location/Qualifiers 12600 /organism="unknown"	81 GlyAsnLysIleArgPheAlaAsnHisSerValAsnProAsnCysTyrAlaLysVal 699	1950 GTGGCAGGCTGGGGATTTTTATCAAAGATCCTGTGCAGAAAAATGAATTCATCTCAGAA 2009 641 TyrCysGlyGluIleIleSerGlnAspGluAlaAspArgArgGlyLysValTyrAspLys 660 641 TyrCysGlyGluIleIll	AppProAppLeuCysLeuThrCysGlyAlaAlaAspHisTrpAspSerLysAsnValSer	1590 GCACACTGCAGAAAGATACAGCTGAAAAAGGACGCTCCTCAAACCATGTTTACAACTATT 1649 521 GlnProCysAspHisProArgGlnProCysAspSerSerCysProCysVallleAlaGln 540	TATTGAACCTCCTGAGAATGTGGAGTG
Oy 241 LysGluLysTyrLysGluLeuThrGluGlnGlnLeuProFlyAlaLeuProProGluCys 260 Db 810 AAGGAAAATHTAAAGAACTCACCGAACAGCAGCTCCCCAGGCGCACTTCCTCCTGAATGT 869 Qy 261 ThrProAsmIleAspGlyProAsmAlaLysSerValGlnArgGluGlnSerLeuHisSer 280	TyrAsnAspAspAspAspAspAspAspGlyAspAspProGluGluArgGluGluLysGln 20	GlnAspGlyThrPheIleGluGluLeuIleLysAsnTyrAspGlyLysValHisGlyAsp 1	Qy 81 ArgGluCysSerValThrSerAspLeuAspPheProThrGlnValIleProLeuLysThr 100	21 SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArgAlaAspGluValLys	ORIGIN ORIGIN Alignment Scores: Perd. No.: Score: 9000 Percent Similarity: 100.0% Best Local Similarity: 100.0% Conservative: 0 Ouery Match: 100.0% DB: US-10-773-302-2_COPY_1_699 (1-699) x AR473734 (1-2600) Oy 1 MetGlyGlnThrGlyLysLysSergluLysGlyProValCysTrpArgLysArgValLys 0 ArgggcCAGACTGGGAAAGGAAAGGGAAAGGGAAAGCGTGTAAAA 149

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Avalon Pharmaceuticals (US)
Location/Qualifiers
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Horrigan, S., Soppet, D.R. and Weaver, Z.
Cancer gene determination and therapeutic
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
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                                          CCCGCTGAGGATGTGGATACTCCTCCAAGGAAAAAGAAGAAGAAGAACACCGGTTGTGGGCT
                                                       ProAlaGluAspValAspThrProProArgLysLysLysLysLysHisArgLeuTrpAla
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Laible,G., Wolf,A., Dorn,R., Reuter,G., Nislow,C., Le Laible,G., Wolf,A., Dorn,R., Reuter,G., Nislow,C., Le Popkin,D., Pillus,L. and Jenuwein,T.
Mammalian homologues of the Polycomb-group gene Enhan mediate gene silencing in Drosophila heterochromatin cerevisiae telomeres
EMBO J. 16 (11), 3219-3232 (1997)
                                                                                                                                                        Austria
                                                                                                                                                                        Submitted (18-JUN-1996) I.M.P.,
                                                                                                                                                                                     Laible,G., Lebersorger,A.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                            Hominidae; Homo.
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Mammalia; Eutheria;
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                                          /organism="Homo sapiens"
/mol type="mRNA"
/db xref="taxon:9606"
/cell line="BJA.B"
/cell type="B-cell"
/gene="EZH2"
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                                                                                                                                        Location/Qualifiers
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NRQKILERTEILNQEWGQRIGKRIQPVIILTSVSSLEGTRECSVTSDLDFFTQVIFLKTIN
AVASVPILMYSMSPLQQNFWRIBEITVLENIPYMGDEVLQDGTFIEELINXYDGKVHGD
RECGFINDEIFVELVNALGQYNDDDDDDDDDDDEREREKOXDLEDHRDDKSSRPPRKF
PSDKIFELISSMFPDKGTAEELKSKYKELTEQQLFGALP PECTFNIDGYNAKSVQBEQ
SLHSFHTLFCRRCFKYDCFLHPFHATPNTYKRKNTETALDNKPCGPQCYQHLEGAKEF
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NDKEBEEKKDETSSSSEANSRCQTPIKMKPNIEPPNNVSSGAEASMFRVLIGTYYDN
FCAIARLIGTKTCRQVYEFRVKESSIAPAPAEDVTPPRKKKKHRLMAAHCRKIQL
KKDGSNHVYNYQDCDHPRQPCDSSCPCVIAQNFCEKFCQCSSECQNRFPCCKAQC
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GIFIKDPVQKNEFISEYGGEIISQDEADRRGKVYDKYMCSPLPNLANDFVVDATRKGN
KIRFANHSVNENCYAKVMMVNGDHRIGIFAKRAIQTGEELFFDYRYSQADALKYVGIE
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group protein enhancer of zeste encoded by GenBank
Accession Number U00180"
/codon_start=1
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/protein_id="AAC51520.1"
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                                                                                Submitted (10-MAY-2004) Katsuyuki Hashimoto, National Institute of Infectious Diseases, Division of Genetic Resources; 23-1, Toyama 1-chome, Shinjuku-ku, Tokyo, 162-8640, Japan (E-mail:khashienih.go.jp, URL:http://www.nih.go.jp/yoken/genebank/, Tel:81-3-5285-1111(ex.2120), Pax:81-3-5285-1181)
The International consortium for macaque CDNA sequencing and analysis consists of:Department of Virology and Human Genome Center, Institute of Medical Science, The University of Tokyo, Japan; Division of Genetic Resources, National Health Research Institute, Taipei, Taiwan; Institute of Molecular Biology, Academia Sinica, Taipei, Taiwan; Department of Ecology & Evolution,
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Hashimoto, K., Kusuda, J. and Sugano, S.
Direct Submission
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Oligo capping; fis (full insert sequence)
Macaca fascicularis (crab-eating macaque)
Macaca fascicularis
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Biology,
National Institute of Genetics of Japan,
                                          University of Chicago, Chicago,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    implications
                                             IL, USA,
Mishima,
                                               Center for Information
Japan. Clone
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Best Local Similarity:
Query Match:
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                                               SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArgAlaAspGluValLysSer 40
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0 3803.00 99.9% 99.9%

Length:
Matches:
Conservative:
Mismatches:
Indels:

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R. Site2: DraII (CACCATGTG)

Rescription: 1st strand cDNA was primed with an oligo (dT) primer pescription: 1st strand cDNA was synthesized (ATGTGGCCTTTTTTTTTTTTTTT); double-stranded cDNA was synthesized using specific 5' and 3' primers and amplified by PCR. The PCR product was digested with Sfil and size selection was performed to exclude fragments <1.5kb.The Sfil-digested PCR product was cloned into distinct DraIII sites of pME185-FL3. XhoI sites just outside the DraIII sites can be used to isolate the CDNA insert. Libraries were constructed by oligo-capping method. Libraries were made from:

QCCE: cerebellum cortex
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http://www.nih.go.jp/yoken/genebank/
Lab host: TOP10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sequencing was done by primer-walking method using ABI DNA
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R. Site2:
                        /proteIn_id="BAB02436.1"
//db_xref="G1:67972188"
//db_xref="G1:67972188"
//db_xref="G1:67972188"
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NAASVPIMYSMSPLQQNFMVEDETVLHNIPYMGDEVLDQGTFIEELIKNYDGKVHGD
RECGFINDEIFVELVMALGQVMDDDDDDDEDEEREBKGKDLEBHRDDKGSRPERKF
PSDKIFEAISSMFPDKGTABELKEKYKELTEQQLPGALPPECTPNIDGPNAKSVQREQ
SLHSFHTLFCRRCFKYDCFLHPFHATPNAYKRKNTETPALDNKPCGPQCYQHLEGAKEF
NAALTAERIKTPFKRPGGRRRGRLPNNSKRSTFTINVLESKDTDSDRBAGTETGGEN
NDKEBEEKKDETSSSSBANSRCQTFIKMENIEPENVEWSGAEASMFRVLIGTYYDN
FCALARLICTKTCRQVYEFRVKESSILAPABAEDVTPFRKKKKHELMAAHCRKIQL
KCDGSSNHVTNYQPCDHPRQPCDSSCPCVIAQNFCEKFCQCSSECQNRFPGCRCKAQC
NTXQCPCYLAVRECDPDLCLTCGAADHWDSKNVSCKNCSIQRGSKKHLLLAPSDVAGW
GIFIKDPVQKNEFISBYCGEIISQDEADRRKYDKNVSCKNCSIQRGSKKHLLLAPSDVAGW
GIFIKDPVQKNEFISBYCGEIISQDEADRRKYDKNVSCKNCSIQRGSKKHLLLAPSDVAGW
GIFIKDPVQKNEFISBYCGEIISQDEADRRKYDKNVSCKNCSIQRGSKKHLLLAPSDVAGW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="unnamed protein product; Homo sapiens enhancer of zeste homolog 2 (Drosophila) (EZH2), transcript variant 2, mRNA, RefSeq: NM_152998.1"
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/dev_stage="adult"
13______
KIRFANHSVNPNCYAKVMMVNGDHRIGIFAKRAIQTGEELFFDYRYSQADALKYVGIE
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QnpA: parietal lobe right
QtrA: temporal lobe left
QflA: frontal lobe left
QmoA: medulla oblongata
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DraIII (CACTGTGTG)
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341 GluArgIleLysThrProProLysArgProGlyGlyArgArgArgGlyArgLeuProAsn 360	AlaThrProAsnThrTyrLysArgLysAsnThrGluThrAlaLeuAspAsnLysProCys 3	AAGGAAAAATATAAAGAACTCACCGAACAGCAGCTCCCCAGGCGCACTTCCTCCTGAATGT 8 ThrProAsnIleAspGlyProAsnAlaLysSerValGlnArgGluGlnSerLeuHisSer 2	693 AAAGATCTGGAGGATCACCGAGATGATAAAGAAAGCCGCCCACCTCGGAAATTTCCTTCT 752 221 AsplysIlePheGluAlaIleSerSerMetPheProAsplysGlyThrAlaGluGluLeu 240	TyrAsnAspAspAspAspAspAspAspGlyAspAspProGluGluArgGluGluLysGln 20	1 GlnaspGlyThrPheIleGluGluLeuIleLysAsnTyrAspGlyLysValHisGlyAsp 1	LeuasnalavalalaservalProIleMetTyrSerTrpSerProLeuGlnGlnAsnPhe 1	LysGlnArgArglleGlnProValHislleLeuThrSerValSerSerLeuArgGlyThr	
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RESULT 7 ED186247 LOCUS DEFINITION STAT6 activating gene. ACCESSION BD186247 VERSION BD186247 VERSION BD186247 VERSION BD186247 GI:31878447 VERSION BD186247 Homo sapiens (human) ORGANISM Homo sapiens (human) ORGANISM Homo sapiens Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Enteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;	QY 661 TYRMetCysSerPheLeuPheAsnLeuAsnAspAheValValAspAlaThrArgLys 680	Oy 621 ValAlaGlyTrpGlyIlePheIleLysAspProValGlnLysAsnGluPheIleSerGlu Qy 621 ValAlaGlyTrpGlyIlePheIleLysAspProValGlnLysAsnGluPheIleSerGlu	581 ASPI 1833 GACG 601 CYBI	Qy 541 AsnPheCysGluLysPheCysGlnCysSerSerGluCysGlnAsnArgPheProGlyCys	Qy 501 AlaHisCysArgLysIleGlnLeuLysLysAspGlySerSerAsnHisValTyrAsnTyr	Qy 461 LysThrCysArgGlnValTyrGluPheArgValLysGluSerSerIleIleAlaProAla 480	Qy 421 LysBroAsnIleGluProProGluAsnValGluTrpSerGlyAlaGluAlaSerMetPhe	Db 1233 GATAGGGAAGCAGGACTGAAACGGGGGGAGAGAACAATGATAAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAG

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PN W0 02096943-A/116
PD 05-DEC-2002
PP 22-MAY-2002 W0 2002JP004949
PF 22-MAY-2002 W0 2002JP004949
PR 25-MAY-2001 JP 01P 157043,30-AUG-2001 JP 01P 260681 PR
10-CCT-2001 JP 01P 313175
PI GOICHI HONDA, AKIO MATSUDA, SHUJI MURAMATSU, KENYA ISHIZAWA PC
C07K14/47,C07K17/00,C12N15/12,C12N5/10,C12P21/02,C12P21/08, PC
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PC A61P3/06,A61P3/10,A61P29/00,A61P31/00,A61P35/00,A61P37/00, PC
G01N33/15,
PC G01N33/50,G01N33/53,G01N33/566,G06F17/30,G06F17/60 CC STAT
activating gene
FH Key
Location/Qualifiers
FT CDS
Location/Qualifiers
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1 (bases 1 to 2558)

1 (bases 1 to 2558)

Honda,G., Matsuda,A., Muramatsu,S. and Ishizawa,K.

STAT6 activating gene
Patent: WO 02096943-A 116 05-DEC-2002;
ASAHI KASEI CORP,GOICHI HONDA,AKIO MATSUDA,SHUJI MURAMATSU,
ISHIZAWA
                                                                                                                                                                                                                                                                                                           SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArgAlaAspGluValLysSer
                                                                                                                                                                                                                                                                                                                                                       MetGlyGlnThrGlyLysLysSerGluLysGlyProValCysTrpArgLysArgValLys
ArgGluCy8GlyPheIleAsnAspGluIlePheValGluLeuValAsnAlaLeuGlyGln
                                                                                                                                                                       MetPheSerSerAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnGluTrp
                                               GlnAspGlyThrPheIleGluGluLeuIleLysAsnTyrAspGlyLysValHisGlyAsp
                                                                                             MetValGluAspGluThrValLeuHisAsnIleProTyrMetGlyAspGluValLeuAsp
                                                                                                                          CTGAATGCAGTTGCTTCAGTACCCATAATGTATTCTTGGTCTCCCCCTACAGCAGAATTTT
                                                                                                                                        LeuAsnAlaValAlaSerValProIleMetTyrSerTrpSerProLeuGlnGlnAsnPhe
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Location/Qualifiers
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99.9%
99.9%
99.8%
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Qy 21 SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArgAlaAspGluValLysSer 40	OS-10-7/3-302-2_COF1_1_039 (1-039) A AA621330 (1-2376) OY 1 MetGlyGlnThrGlyLy8Ly8SerGluLy8GlyProValCy8TrpArgLy8ArgValLy8 20	Match: 99.8% Indems: Match: 2 Gaps: 773.202-2 CODY 1 600 (1 600) - Avenue:	nment Scores: No.: 3802.00 Length: and Matches: part Similarity: 99.9% Conservative:	/mot_type="massigned by: ORIGIN /db_xref="taxon:9606" ORIGIN	Location/Qualifi 12576 /organism="Homo	AUTHORS Andrews, P.A., Walsh, J.A. and Gokhale, P.A. TITLE Method to modify differentiation of pluripotential stem cells JOURNAL Patent: WO 03068961-A 78 21-AUG-2003; Axordia Limited (GR)	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae; Homo.	AX821 Homo	AX821950 AX821950 AX821950 AX821950 DEFINITION Sequence 78 from Patent WO03068961. ACCESSION AX821950	The standard of the standard o	201 Indicate the state of the constraint of the state o	641 TyrcysG1yG1w11e11eSerG1ThaspG1w1.aaspArgargG1yLysValTyrAspLys	621 ValAlaGLyTrpGLyTlePheIleLy8AspProValGLTLy8AsnGluPheIleSerGlu	601 CyslysAsnCysSerIleGlnArgGlySerLysLysHisLeuLeuLeuAlaProSerAsp 	Db 1798 GACCTGACCTCTGTCTTACTTGTGGAGCCGCTGACCATTGGGACAGTAAAAATGTGTCC 1857	1738 CGCTGCAAAGCACACTGCAAGCAAGTGCCCGTGCTACCTGGCTGCCCGAGAGTGT 1	Qy 541 AsnPheCysGluLysPheCysGlnCysGlnCysGlnAsnArgPheProGlyCys 560	
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Zeste enhancer gene.
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    LysGlnArgArgIleGlnProValHisIleLeuThrSerValSerSerLeuArgGlyThr
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Chen,H., Rossier,C. and Antonarakis,S.E.
Cloning of a human homolog of the Drosophila enhancer
(EZH2) that maps to chromosome 21q22.2
Genomics 38 (1), 30-37 (1996)
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REFERENCE AUTHORS	ORGANISM	ACCESSION VERSION KEYWORDS SOURCE	BC010858 LOCUS DEFINITION	Db 2	A)			<u>,,</u>	<u>.</u>		}	. B &	<u>.</u>			D 49	
1 (bases 1 to 2655) Strausberg,R.L., Peingold,B.A., Grouse,L.H., Derge,J.G., Klausner,R.D., Collins,F.S., Wagner,L., Shenmen,C.M., Schuler,G.D., Klausner,R.D., Collins,F.S., Buetow,K.H., Schaefer,C.F., Bhat,N.K., Altschul,S.F., Zeeberg,B., Buetow,K.H., Schaefer,C.F., Bhat,N.K., Hopkins,R.F., Jordan,H., Moore,T., Max,S.I., Wang,J., Hsieh,F., Diatchenko,L., Marusina,K., Farmer,A.A., Rubin,G.M., Hong,L.,	Homo sapiens Eukaryota; Me Mammalia; Eut Hominidae; Ho	8 8.2 GI:34194096 piens (human)	BC01085 Homo sa	OOI GIYABIIJBI EAIGEREALGABIILIBEE VALABIILIBEE	TACTGTGGAGAGATTATTTCTCAAGATGAAGCTGACAGAGAGGGAAAGTGTATGATAAA	**ALALGELYITGELY LEPRELIE LYGAS PYTOVALGELI LYGAS GENEVALUE SETGELU	OUL CYBENYBABICYBSETITEGITHATGGLYSETIYBHYBHIBHCHEUHEUHAHAFTOSETABD	AsperoasplencysLeuthrcysG1yalaalaaspH1sTrpAspserlysAsnValser	ATGCYBLYBALBOINCYBABILIDILLYBURCKYBIYLEMAIAWAIATGGLUCYB 	ASDINGCYSGINLYSSINCYSSGINCYSSGINCYSGINGCSGCTTTCCGGGATGC ANTITITGTGAAAAGTTTTGTCAATGTAGTTCAGAGTGTCAAAAACCGCTTTCCCGGGATGC	CARCOCYBASDITER FOR GGIRFLOY BASDES BELOY BY ALL TEXTAGELY CARCOCYBASDITER FOR THE CARCOCYBASDITER FOR THE CARCOCYBASDITER FOR THE CARCOCYBASDITER FOR THE CARCOCYBASDITER FOR THE CARCOCACA CARCOCYBASDITER FOR THE CARCOCACA CARCOCYBASDITER FOR THE CARCOCACA CARCOCYBASDITER FOR THE CARCOCACACACACACACACACACACACACACACACACAC	AlaHisCysarglysileGinLeuLysLysaspGlySerSerAsmHisValTyrAsmTyr	ProAleGluAspValAspThrProProArgLysLysLysArgLysHisArgLeuTrpAla	LysThrCysArgGlnValTyrcluPheArgValLysGluSerSerIleIleAlaProAla	441 ArgValleuileGlyThrTyrTyrAspAsnPheCysAlaileAlaArgLeuileGlyThr 460 	AAGCCAAATATTGAACCTCCTGAGAATGTGGAGTGGAGT	

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Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,
Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,
Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J.,
McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,
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Willalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,
Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,
Villalon, D.K., Mitting, M., Madan, A., Young, A.C., Shevchenko, Y.,
Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D.,
Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M.,
Butterfield, Y.S., Krzywinski, M.I., Skalaka, U., Smailus, D.E.,
Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A.
Mammalian Gene Collection Program Team
Generation and initial analysis of more than 15,000 full-length
human and mouse cDNA sequences
Natl Rose Collection Program Team
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Clone distribution: MGC clone distribution information can be through the I.M.A.G.E. Consortium/LLML at: http://image.llnl.g. Series: IRAK Plate: 14 Row: n Column: 6
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 2351
Location/Qualifiers
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cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Sequencing by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Sequencing Group at the Stanford Human
Center, Stanford University School of Medicine, Stanford,
Web site:

http://www-shgc.stanford.edu
Contact: (Dickson, Mark) mcd@paxil.stanford.edu
Dickson, M., Schmutz, J., Grimwood, J., Rodriquez, A., and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Submitted (12-JUL-2001) National Institutes of Health, Mammu Gene Collection (MGC), Bethesda, MD 20892-2590, USA NIH-MGC Project URL: http://mgc.nci.nih.gov On Aug 25, 2003 this sequence version replaced gi:14790028.

Contact: MGC help desk
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Tissue Procurement: ATCC
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                       PSDKI FEAISSMFPDKGTAEELKEKYKELTEQQLPGALPPECTPNIDGPNAKSVQREQ
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DD208658
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1 (bases 1 to 2512)

Rabin,M.A., Chinnaiyan,A.M. and Surikumaru,A Expression Profile of Prostate Cancer Patent: JP 2005518522-A 95 23-JUN-2005; THE REGENTS OF THE UNIVERSITY OF MICHIGAN OS Homo sapiens PN JP 2005518522-A/95 PP 02-AUG-2002 JP 2003517245 PF 02-AUG-2001 US 60/309581,15-NOV-2001 DI mark a rabin,aruru m chinnaiyan,arun su FH Key Location/Qualifiers.
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Homo sapiens (human)
Homo sapiens
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Expression Profile of Prostate (
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Mammalia; Butheria; Euarchontoglires; Primates; Catarrhini;
                                                                    SerGluTyrMetArgLeuArgGlnLeuLy8ArgPheArgArgAlaAspGluValLy8Ser
LysGlnArgArgIleGlnProValHisIleLeuThrSerValSerSerLeuArgGlyThr
                              MetGlyGlnThrGlyLysLysSerGluLysGlyProValCysTrpArgLysArgValLys
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                                                                                                                                                                                                                                                      /organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
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421 LYSProAsnIleGluPro	401 LysaspGluThrSerSer 	381 AspargGlualaGlyThr 1149 GATAGGGAAGCAGGACT	361 AsnSerSerArgProSer	341 GluargīleLysThrPro 1029 GAGCGGATAAAGACCCCA	321 GlyProGlnCysTyrGln 969 GACCACAGTGTTACCAG	301 AlaThrProAsnThrTyr 909 GCAACACCCAACACTTAT	281 PheHisThrLeuPheCys	261 ThrProAsnIleAspGly 789 ACCCCCAACATAGATGGA	241 LyBGluLyBTyrLyBGlu 729 AAGGAAAATATAAAGAA	221 ABDLYBIlePheGluAla 669 GATAAAATTTTTGAAGCC	201 LysaspLeuGluaspHis 	181 Tyrasnaspaspaspasp 	161 ArgGluCysGlyPheIle 489 AGAGAATGTGGGTTTATA	141 GlnAspGlyThrPheIle 429 CAGGATGGTACTTTCATT	121 MetValGluAspGluThr 369 ATGGTGGAAGATGAAACT	101 LeuAsnAlaValAlaSer 309 CTGAATGCAGTIGCTTCA	81 ArgGluCysSerValThr 	
LysProAsnIleGluProProGluAsnValGluTrpSerGlyAlaGluAlaSerMetPhe	LysAspGluThrSerSerSerSerGluAlaAsnSerArgCysGlnThrProIleLysMet	AspargGlualaGlyThrGluThrGlyGlyGluAsnAsnAspLysGluGluGluGluLys 	AsnSerSerArgProSerThrProThrIleAsnValLeuGluSerLysAspThrAspSer	GluargIleLysThrProProLysArgProGlyGlyArgArgArgGlyArgLeuProAsn 	GlyProGlnCysTyrGlnHisLeuGluGlyAlaLysGluPheAlaAlaAlaLeuThrAla 	AlaThrProAsnThrTyrLysArgLysAsnThrGluThrAlaLeuAspAsnLysProCys 	PheHisThrLeuPheCysArgArgCysPheLysTyrAspCysPheLeuHisProPheHis 	ThrProAsnIleAspGlyProAsnAlaLysSerValGlnArgGluGlnSerLeuHisSer 	LysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuProProGluCys 	AspLysIlePheGluAlaIleSerSerMetPheProAspLysGlyThrAlaGluGluLeu 	LygaspLeuGluaspHisArgAspAspLysGluSerArgProProArgLysPheProSer	Tyrasnaspaspaspaspaspaspaspgglyaspaspproglugluarggluglulysgln 	ArgGluCysGlyPheIleAsnAspGluIlePheValGluLeuValAsnAlaLeuGlyGln 	GlnaspGlyThrPheIleGluGluLeuIleLysasnTyrAspGlyLysValHisGlyAsp 	MetValGluAspGluThrValLeuHisAsmIleProTyrMetGlyAspGluValLeuAsp 	LeuAsnAlaValAlaSerValProIleMetTyrSerTrpSerProLeuGlnGlnAsnPhe 	ArgGluCysSerValThrSerAspLeuAspPneProThrGlnVallleProLeuLysrnr 	AAACAGCGAAGGATACAGCCTGTGCACATCCTGACTTCTGTGAGCTCATTGCGCGGGGACT
laSerMetPhe 440 CTCAATGTTT 1328	rOIleLyBMet 420 AATAAAGATG 1268	luGluGluLys 400 haGAAGAGAAG 1208	spThrAspSer 380 ATACAGACAGT 1148	rgLeuProAsn 360 GCTTCCCAAT 1088	laLeuThrAla 340 CTCTCACCGCT 1028	BnLysProCys 320 ACAAACCTTGT 968	isProPheHis 300 	erLeuHisSer 280 CTTACACTCC 848	roProGluCys 260 CTCCTGAATGT 788	laGluGluLeu 240 CAGAAGAACTA 728	ysPheProSer 220 AATTTCCTTCT 668	luGluLy8Gln 200 AGAAAAGCAG 608	laLeuGlyGln 180 CCTTGGTCAA 548	alHisGlyAsp 160 ACACCGGGAT 488	luValLeuAsp 140 AGTTTTAGAT 428			
	REFERENCE AUTHORS	ORGANISM	ACCESSION VERSION KEYWORDS	BC003772 LOCUS DEFINITION	Db :	рь ⁻ Оу	Q B ;	Q B	Qy b	Q B :	S B 1	S 음 :	S B 1	QV B :	Q B :	6 B :	8 B	Q
Hopkins, R.F., Diatchenko, L., Stapleton, M.,		M Mus musculus Eukaryota; Met Mammalia; Euth Sciurognathi;	BC003772 BC003772.1 MGC.			989	.929 661		.809	749 GACCO				99 GC 21 GL	449			441 ArgValLeuIle

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;rPheLeuPheAsnLeuAsnAsnAspPheValValAspAlaThrArgLys 680
                                                                                                                      GATTATTTCTCAAGATGAAGCTGACAGAAGAGGGAAAGTGTATGATAAA 1988
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                                                                                                                                                                                                                                                                                                      CTGTCTTACTTGTGGAGCCGCTGACCATTGGGACAGTAAAAATGTGTCC
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2574 bp mRNA linear ROD 29-JUN-2004 enhancer of zeste homolog 2 (Drosophila), mRNA (cDNA 69 IMAGE:3492110), complete cds. 11:13277755 (house mouse)

Stapleton, Hetazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Butheria; Euarchontoglires; Glires; Rodentia; thi; Muroidea; Muridae; Murinae; Mus.

1 to 2574)

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1, Feingold, E.A., Grouse, L.H., Derge, J.G., Schuler, G.D., R.D., Collins, F.S., Wasgner, L., Shenmen, C.M., Schuler, G.D., R.D., Collins, F.S., Buetow, K.H., Schaefer, C.P., Bhat, N.K., S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.P., Bhat, N.K., F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F., O, L., Marusina, K., Parmer, A.A., Rubin, G.M., Hong, L., M., Soares, M.B., Bonaldo, M.F., Casavant, T.L., . K. D

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Clone distribution: MGC clone distribution information can be four through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 8 Row: p Column: 1
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 6679720.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: cgapbs-remail.nih.gov
Tissue Procurement: Gilbert Smith, Ph.D.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Sequencing Group at the Stanford Human G.
Center, Stanford University School of Medicine, Stanford, Cl
Web site: http://www-shgc.stanford.edu
Contact: (Dickson, Mark) mcd@paxil.stanford.edu
Dickson, M., Schmutz, J., Grimwood, J., Rodriquez, A., and I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              USA
NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
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Submitted (28-FEB-2001) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
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/db_xref="GeneID:14056"
                                                                                                                                                                                                                                                                                                                           /db_xref="GeneID:14056"
/db_xref="MGI:107940"
                                                                                                                                                                                                                                                                                                                                                                                                       /gene="Ezh2"
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                                                                                                                                                                                                                                                            codon_start=1
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AAALTAERIKTPEKRPGGRRRGLLENNSSRPSTETISVLESKOTDSDREAGTETGGEN
NDKEEEEKKDETSSSSEANSRCQTFIKMKPNIEPENVEWSGAEASMFRVLIGTYYDN
FCAIAELIGTKTCRQVYEFRVKESSIIAPVETEDVOTPPRKKKRKHLWAAHCRKIQK
KKDGSSNHVNYQPCDHEPRQPCDSSCCPCVIAQNPCEKFQQCSSECQNRFPGCRCKAQC
NTKQCPCYLAVRECDPDLCLTCGAADHWDSKNVSCKNCSIQRGSKKHLLLAPSDVAGW
GIFIKDPVQKNEFISEYCGEIISQDEADRRGKVYDKKMCSFLFNLNNDFVVDATRKGN
KIRFANHSVNENCYAKVMNVNGDHRIGIFAKRAIQTGEELFFDYRYSQADALKYVGIE
REMEIP*

Query Match: DB: US-10-773-302-2_COPY_1_699 (1-699) Percent Similarity: Best Local Similarity: Score: Pred. Alignment 8 0 : 241 774 714 654 594 181 534 474 141 414 354 101 221 201 161 121 294 234 174 114 18 61 41 21 54 _ GlnAspGlyThrPheIleGluGluLeuIleLysAsnTyrAspGlyLysValHisGlyAsp MetGlyGlnThrGlyLysLysSerGluLysGlyProValCysTrpArgLysArgValLys AAGGAAAAATATAAAGAACTCACGGAGCAGCAGCTCCCAGGTGCTCTGCCTCCTGAATGT LysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuProProGluCys GATAAAATATTTGAAGCCATTTCCTCAATGTTTCCAGATAAGGGCACCGCAGAAGAACTG AspLysIlePheGluAlaIleSerSerMetPheProAspLysGlyThrAlaGluGluLeu LysAspLeuGluAspHisArgAspAspLysGluSerArgProProArgLysPheProSer TyrAsnAspAspAspAspAspAspAspGlyAspAspProGluGluArgGluGluLysGln ArgGluCysGlyPheIleAsnAspGluIlePheValGluLeuValAsnAlaLeuGlyGln CAGGACGGCACTTTCATTGAAGAACTAATAAAAATTATGATGGAAAAGTGCATGGTGAC ATGGTGGAAGACGAAACTGTCTTACATAACATTCCTTACATGGGGGGATGAAGTTCTGGAT MetValGluAspGluThrValLeuHisAsnIleProTyrMetGlyAspGluValLeuAsp CTGAATGCAGTCGCCTCGGTGCCTATAATGTACTCTTGGTCGCCCTTACAACAGAATTTT LeuAsnAlaValAlaSerValProIleMetTyrSerTrpSerProLeuGlnGlnAsnPhe 120 **AGGGAGTGTTCAGTCACCAGTGACTTGGATTTTCCAGCACAAGTCATCCCGTTAAAGACC** AAGCAGCGGAGGATACAGCCTGTGCACATCATGACTTCTGTGAGCTCATTGCGCGGGACT LysGlnArgArgIleGlnProValHisIleLeuThrSerValSerSerLeuArgGlyThr ATGTTTAGTTCCAATCGTCAGAAAATTTTGGAAAGAACTGAAACCTTAAACCAAGAGTGG MetPheSerSerAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnGluTrp TCAGAGTACATGAGACTGAGACAGCTCAAGAGGTTCAGAAGAGCTGATGAAGTAAAGACT SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArgAlaAspGluValLysSer AGAGAATGTGGATTTATAAATGATGAAATTTTTTGTGGAGTTGGTAAATGCTCTTGGTCAA ArgGluCysSerValThrSerAspLeuAspPheProThrGlnValIleProLeuLysThr 100 ATGGGCCAGACTGGGAAGAATCTGAGAAGGGGACCGGTTTGTTGGCGGAAGCGTGTAAAA 0 3756.00 99.3% 98.3% 98.6% × BC003772 (1-2574) Matches: Mismatches: Indels: Conservative: 260 180 833 240 200 593 160 473 533 773 713 220 653 140 413 353 293 233 173 80 60 40

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ThrProAsnIleAspGlyProAsnAlaLysSerValGlnArgGluGlnSerLeuHisSer

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                                                                                                                                                                                                                                                              AsnPheCysGluLysPheCysGlnCysSerSerGluCysGlnAsnArgPheProGlyCys
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                                                                                                                                                                                                            ArgCysLysAlaGlnCysAsnThrLysGlnCysProCysTyrLeuAlaValArgGluCys
                                                                                                                                                                                                                                                                                                                                                                 GlnProCysAspHisProArgGlnProCysAspSerSerCysProCysValIleAlaGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCACTGAGGATGTAGACACTCCTCCAAGAAAGAAGAAAGGAAACATCGGTTGTGGGCT
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                                                                           CysLysAsnCysSerIleGlnArgGlySerLysLysHisLeuLeuLeuAlaProSerAsp
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Clone distribution: MGC clone distribution information can be

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Klausner, R. D., Colline, F. S., Wagner, L., Shenmen, C. M., Schuler, G. D.,

Altechul, S. F., Zeeberg, B., Buetow, K. H., Schaefer, C. F., Bhat, N. K.,

Hopkine, R. F., Jordan, H., Moore, T., Max, S. I., Wang, J., Heich, F.,

Diatchenko, L., Marusina, K., Farmer, A. A., Rubin, G. M., Hong, L.,

Stapleton, M., Soares, M. B., Bonaldo, M. F., Casavant, T. L.,

Scheet, T. E., Brownstein, M. J., Usdin, T. B., Toshiyuki, S.,

Carninci, P., Prange, C., Raha, S. S., Loquellano, N. A., Peters, G. J.,

Abramson, R. D., Millahy, S. J., Bosak, S. A., WcEwan, P. J.,

McKernan, K. J., Malek, J. A., Gunaratne, P. H., Richards, S.,

Worley, K. C., Hale, S., Garcia, A. M., Gay, L. J., Hulyk, S. W.,

Villalon, D. K., Muzny, D. M., Sodergren, E. J., Lu, X., Gibbs, R. A.,

Fahey, J., Helton, B., Ketteman, M., Madan, A., Rodrigues, S.,

Sanchez, A., Whiting, M., Madan, A., Young, A. C., Shevchenko, Y.,

Bouffard, G. G., Blakesley, R. W., Touchman, J. W., Green, E. D.,

Bouffard, G. Blakesley, R. W., Touchman, J. W., Green, E. D.,

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Web site: http://www.hgsc.bcm.tmc.edu/cdna/
Contact: amg@bcm.tmc.edu
Gunaratne, P.H., Garcia, A.M., Lu, X., Huly
Kowis, C.R., Sneed, A.J., Martin, R.G., Muz
A.N., Gibbs, R.A.
                                                                                                                                                                                                             Email: cgapbs-r@mail.nlh.gov
Tissue Procurement: Gilbert Smith, Ph.D.
CDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.B. Consortium (LLNL)
DNA Sequencing by: Baylor College of Medicine Human Genom
Sequencing Center
Control Control
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Direct Submission
Submitted (31-OCT-2001) National Institutes of Health, Mammalian
Submitted (31-OCT-2001) Cancer Genomics Office, National Cancer
Gene Collection (MGC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
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Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia;
Sciurognathi; Muroidea; Muridae; Murinae; Mus.
                                                                                                                                                                                   Center code: BCM-HGSC
                                                                                                                                                                                                                                                                                                                                                                                                                                      NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
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Series: IRAK Plate: 10 Row: 1 Column: 8
This clone was selected for full for the sequencing because it
passed the following selection criteria: matched mRNA gi: 6679720
This clone grew slowly and was rescued by PCR.
                                                                                                                                                                   SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArgAlaAspGluValLysSer
                                                                                                                                                                                                                           MetGlyGlnThrGlyLysSerGluLysGlyProValCysTrpArgLysArgValLys
                                 LysGlnArgArgIleGlnProValHisIleLeuThrSerValSerSerLeuArgGlyThr
                                                                                                                                                                                                             AAGCAGCGGAGGATACAGCCTGTGCACATCATGACTTCTGTGAGCTCATTGCGCGGGACT
                                                                                  ATGTTTAGTTCCAATCGTCAGAAAATTTTTGGAAAAGAACTGAAAACCTTAAACCAAGAGTGG
                                                                                                     MetPheSerSerAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnGluTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /product="enhancer of zeste homolog 2"
/product="enhancer of zeste homolog 2"
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/db_xref="G2:16741077"
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NRQKILERTETLNQEWKQRRIQPVHIMTSVSSLRGTREGSVTSDLDFPAGVIPLKTLN
AVASVPIMYSWSPLQQNFMVEDETVLHNIFYMGDEVLDQGTFIEELIKRYDGKVHGD
REGGFINDEIFVELWALGQYNDDDDDDDEDEFEREKGKDLEBURDDKETCPPRKF
PADKIFERISSMFPDKGTABELKEKYKELTEQQLFGALFPECTPNIDGPNAKSVQREQ
SLHSFHTLFCRRCFKYDCFLHFFHATPNTYKRKNTETALDKFPCGPQCYQHLEGAKEF
AAALTAERIKTPFKRPGGRRRGRLFNNSSRFSTFTISVLESKDTDSDREAGTETGGEN
NDKEEBEKKDETSSSSEANSRCGTFIKWENIEPFEDVTFBDVTFBDVTFBARAHCRKIQL
FCALARLIGTKTCRQVTSFRVESSIIAFVFTEDVTFBDVTFPKKKKKHRLMAAHCRKIQL
KKDGSSNHYVNYQFCDHFRQPCDSSCFPUTIAQNFCEKFCQCSSECQNRFPGCRCKAQC
NTKQCPCYLAVRECDPDLCLTCGAADHWDSKNVSCKNCSIQRGSKKHLLLAFSUVAGW
GIFIKDPYQKKEFIBSYCGEIISQDEADRRGKYYDKNCSFLFMLNNDFVDDATEKGN
GIFIKDPYQKKEFIBSYCGEIISQDEADRRGKYYDKYNCSFLFMLNNDFVDDATEKGN
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/note="synonym: Enx-1"
/db_xref="GeneID:14056"
/db_xref="MGI:107940"
/db_xref="MGI:107940"
67.__2307
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/clone="MGC:5970 IMAGE:3586689"
/tissue_type="Mammary tumor metastatized to lung. Tumor arose spontaneously from a senescent normal mammary (clonal) outgrowth infected with the virus MMTV."
/clone_lib="NCI_CGAP_Lu29"
/lab_host="DH10B"
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/strain="Czech II"
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                                                  LysProAsnIleGluProProGluAsnValGluTrpSerGlyAlaGluAlaSerMetPhe
                                                                                                AAAGATGAGACGTCCAGCTCCTGAAGCAAATTCTCGGTGTCAAACACCAATAAAGATG
                                                                                                                LysAspGluThrSerSerSerSerGluAlaAsnSerArgCysGlnThrProIleLysMet
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AK220174
AK220174.1 GI:60360229
FLI_CDNA.
Okazaki,N., Kikuno,R.F., Ohara,R., Inamoto,S., Koseki,H., Hiraoka,S., Saga,Y., Nagase,T., Ohara,O. and Koga,H. Prediction of the Coding Sequences of Mouse Homologues of KIAA Gene. The Complete Nucleotide Sequences of Mouse KIAA-homologous cDNAs Identified by Screening of Terminal sequences of cDNA Clones Randomly Sampled from Size-Fractionated Libraries. Published only in Database (2005)

2 (bases 1 to 2600)

Okazaki,N., F.Kikuno,R., Nagase,T., Ohara,O. and Koga,H.
                                                                                                                                         Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia;
Sciurognathi; Muroidea; Muridae; Murinae; Mus.
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Submitted (22-FBB-2005) Hisashi Koga, Kazusa DNA Research
Institute, Laboratory for Genome Informatics; 2-6-7
Kazusa-kamatari, Kisarazu, Chiba, 292-0818, Japan
(R-mail:mouse@kazusa.or.jp, Tel:81-438-52-3919, Fax:81-43)
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Location/Qualifiers
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                                               ArgGluCysSerValThrSerAspLeuAspPheProThrGlnVallleProLeuLysThr 100
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details recorded"
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/tissue_type="embryonic tail"
/note="vector:modified pBC SK+"
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                                     2 (bases 1 to 2653)

Robert, O.

Direct Submission

Submitted (28-MAR-1996) Department of Molecular Biology,

Massachusetts General Hospital, Wellman 8, Boston, MA 02114,

Location/Qualifiers
                                                                                                                                                                                                              complete cds.

U52951

U52951.1 GI:1279908

Vertebrate polycomb-group gene.

Mus musculus (house mouse)

Mus musculus (house mouse)

Rusaryota, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;

Eukaryota; Metheria; Buarchontoglires; Glires; Rodentia;

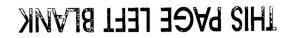
Mammalla; Butheria; Buarchontoglires; Mus.

1 (bass 1 to 265)

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Mus musculus
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ArgGluCysGlyPheIleAsnAspGluIlePheValGluLeuValAsnAlaLeuGlyGln
                                                         MetPheSerSerAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnGluTrp
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                                                                                                                                     CCCACTGAGGATGTAGACACTCCTCCAAGAAAGGAAAAGGAAAACATCGGTTGTGGGCT
                                                                                                                                                      ProAlaGluAspValAspThrProProArgLysLysLysArgLysHisArgLeuTrpAla
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Search completed: August 13, 2006, 19:51:23 Job time: 10526.6 secs



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Result
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-MODEL-frame+ p2n.model -DEV=xlh
-Q=/abss/ABSSWEB gpool/US10773302/runat_11082006_140221_16607/app_query.fasta_1
-DB=N_Geneseq -QFWT=fastap -SUFFIX=p2n.rng -MINMATCH=0.1 -LOOPCL=0 -LOOPEXT=0
-UNITS=bits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45
-DOCALIGN=200 -THR_SCORE=pct -THR_MAX=100 -THR_MIN=0 -ALICN=15 -MODES=LOCAL
-OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=20000000000 -HOST=abs804
-USER=US10773302 @CGN 1_1 1518 @runat 11082006_140221_16607 -NCCU=6 -ICPU=3
-NO_MMAP -NEG_SCORES=0 -WARI -DSPBLOCK=100 -LONGLOG -DEV_TIMEOUT=120
-WARN_TIMEOUT=30 -THREADS=1 -XGAPDF=10 -LONGLOG -FGAPEXT=7
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ALIGNMENTS

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10-MAY-1995;
                                                              CDS
                                                                                              Chromating; regulator; EZH1; EZH2; SUV39H; SET domain; gene therapy; cancer; ss.
             02-MAY-1996;
                                                                                 Homo sapiens.
                                                                                                                   Chromatin regulator protein BZH2.
                                                                                                                                 25-MAR-2003
05-MAY-1997
                                                                                                                                                      AAT43624;
                                                                                                                                                                   AAT43624 standard; DNA; 2600
                           14-NOV-1996.
                                         WO9635784-A2
                                                                                                                                 (revised)
(first entry)
95DE-01016776
             96WO-EP001818.
                                                     /*tag=
                                                            Location/Qualifiers
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Alignment Scores:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New DNA encoding chromatin regulator protein with SET domain related vectors, transformed cells, proteins and antibodies,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PheHisThrLeuPheCysArgArgCysPheLysTyrAspCysPheLeuHisProPheHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GATAAAA
ArgCysLysAlaGlnCysAsnThrLysGlnCysProCysTyrLeuAlaValArgGluCys
                              AsnPheCysGluLysPheCysGlnCysSerSerGluCysGlnAsnArgPheProGlyCys
                                                                     ProAlaGluAspValAspThrProProArgLysLysLysArgLysHisArgLeuTrpAla
                                                                                                                                                                                                            LysProAsnIleGluProProGluAsnValGluTrpSerGlyAlaGluAlaSerMetPhe
                                                                                                                                                                                                                                                                                       AAAGATGAAACTTCGAGCTCCTCTGAAGCAAATTCTCGGTGTCAAACACCAATAAAGATG
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                     TTTTGTCAATGTAGTTCAGAGTGTCAAAACCGCTTTCCGGGATGC
                                                            CAGTTCGTGCCCTTGTGTGATAGCACAA
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stomach; lun
cytostatic;
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h; lung; prostate; pancreas; carcinoma; antitumour; cancerous;
atic; gene therapy; antineoplastic; Wilm's tumour; adenocarcinoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAspSerLysAsnValSer
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2000US-0233617P.
2000US-0234039P.
2000US-0234509P.
2000US-0234509P.
2000US-0234523P.
2000US-0234924P.
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prostate; pancreas; carcinoma; antitumour; cancerous;
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02-OCT-2000

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2000US-0236109P
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2000US-0237172P
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2000US-023760P
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Young PE, Soppet DR, 2002-188264/24. Augustus Weaver 2 Έ, Carter č, Ebner × **Endress** Ģ Horrigan

Screening for anti-neoplastic agent involves exposing cells to a chemical agent to be tested for anti-neoplastic activity, and determining a change in expression of a gene of a signature gene set. change

Claim 1; SEQ ID NO 4184; 44pp; English.

The present invention describes a method (M1) for screening for an anticc neoplastic agent. The method involves exposing cells to a chemical agent
cc to be tested for anti-neoplastic activity, determining a change in
cc expression of at least one gene (I) of a signature gene set, where (I)
cc comprises a sequence (S) selected from 8447 sequences (given in ABL61664
cc to ABL7010), or is at least 95% identical to (S), where a change in
cc expression is indicative of anti-neoplastic activity. (I) has cytostatic
cc anti-neoplastic agent, and can be used for producing a product which is
cc anti-neoplastic agent, and can be used for producing a product which is
cc anti-neoplastic agent, and can be used for producing a product which is
cc anti-neoplastic agent, and can be used for producing a product which is
cc anti-neoplastic sent to convey the chemical structure and/or
properties of the agent. MI can be used in the treatment of cancer such
cc properties of the agent, lung, thyroid, obsophageal, ovarian, kidney,
cr prostate or pancreatic cancer, adenocarcinoma, carcinoma, clear cell
cc cancer, infiltrating ductal cancer, infiltrating lobular cancer, squamous
cc treatment of cancer, squamous
cc treatment of cancer, squamous

Sequence 2600 ₽P; 818 ð 525 ü 630 ç, 627 H 0 Ġ, 0 Other;

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Query Match:
DB:
              Percent Similarity:
Best Local Similarity:
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        2.38e-282
3808.00
100.0%
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                      Length:
Matches:
Conservative:
        Mismatches:
Indels:
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US-10-773-302-2_COPY_1_699 (1-699) × ABL65847 (1-2600)

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                                            SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArgAlaAspGluValLysSer
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                                                                                                                      AsnSerSerArgProSerThrProThrILeAsnValLeuGluSerLysAspThrAspSer
                                                                                                                                                                           GluArgIleLysThrProProLysArgProGlyGlyArgArgArgGlyArgLeuProAsn
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AAAGATGAAACTTCGAGCTCCTCTGAAGCAAATTCTCGGTGTCAAACACCAATAAAGATG
                                                    GATAGGGAAGCAGGGACTGAAACGGGGGGGAGAGAACAATGATAAAGAAGAAGAAGAAGAAG
                                                                 AspArgGluAlaGlyThrGluThrGlyGlyGluAsnAsnAspLysGluGluGluGluLys
                                                                                                        GAGCGGATAAAGACCCCACCAAAAACGTCCAGGAGGCCCGCAGAAGAGGACGGCTTCCCAAT
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뭉 Ś 밁 ঠ 밁

WO2004091548-A2

Homo

cancer; detection; pre-cancerous; antineoplastic; cancer therapy; cytostatic; gene therapy; gene; ds.

Human gene over-expressed in a cancerous cell,

SEQ ㅂ 13-JAN-2005

(first

entry

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RESULT 3
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Pred. No.:
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                          LysThrCysArgGlnValTyrGluPheArgValLysGluSerSerIleIleAlaProAla 480
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                                                                        ArgValLeuIleGlyThrTyrTyrAspAsnPheCysAlaIleAlaArgLeuIleGlyThr
                                                                                                            LysProAsnIleGluProProGluAsnValGluTrpSerGlyAlaGluAlaSerMetPhe
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                            Strovel JW,
                                                                                                                                                            cytostatic;
                                                                                                                                                                     cancer; detection;
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                                                                                   15-APR-2004; 2004WO-US009289.
                                                                                                     28-OCT-2004
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                                             (AVAL-) AVALON PHARM
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                                                                                                                                                           gene therapy; gene;
                            Cain CB,
                                                                2003US-0462895P
                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                           yTrpGlyIlePheIleLysAspProValGlnLysAsnGluPheIleSerGlu
                                                                                                                                                                     pre-cancerous; antineoplastic; cancer therapy;
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                            Horrigan SK,
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Diagnosing cancer in a mammal comprises determining amplification specific genes, e.g., serine/threonine kinase 6, in the genome of

Claim 3; SEQ ID NO 88; 92pp; English.

CC mammal. The method composites determining amplification of specific genes, cc given in the specification, in the genome of a mammal. The invention cc further comprises methods for: diagnosing cancer or a pre-cancerous condition in a mammal, inhibiting cancer or a pre-cancerous condition in a mammal, inhibiting cancer or a pre-cancerous condition in a comman patient; identifying an arti-neoplastic agent; determining the cancerous status of a cell; identifying a compound as an anti-neoplastic cc agent; treating cancer; monitoring the progress of cancer therapy in a compound; and determining the likelihood of success of cancer therapy in a compound; and determining the progress of cancer therapy in a compound; and determining the progress of a treatment for cancer in a patient following commencement of a cancer treatment for cancer in cc and may be used in gene therapy. The method is useful in diagnosing or treating cancer in a mammal. This polynuclectide sequence represents a cc gene over-expressed in a cancerous cell, used in the novel cancer. gene over-expressed in a cancerous cell, diagnosis method of the invention. invention relates to a novel method for diagnosing g cancer in a n of specific ge The invention cancer

Sequence 2600 BP; 818 A; 525 Ç 630 ç, 627 Τ, 0 U; 0 Other;

US-10-773-302-2_COPY_1_699 (1-699) Query Match: DB: Percent Similarity: Best Local Similarity: 2.38e-282 3808.00 100.0% 100.0% 100.0% × ADT89975 (1-2600) Length:
Matches:
Conservative:
Mismatches: Indels: 2600

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AGAGAATGTGGGTTTATAAATGATGAAATTTTTTGTGGAGTTGGTGAATGCCCCTTGGTCAA ArgGluCysGlyPheIleAsnAspGluIlePheValGluLeuValAsnAlaLeuGlyGln

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GlnAspGlyThrPheIleGluGluLeuIleLysAsnTyrAspGlyLysValHisGlyAsp

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AsnPheCysGluLysPheCysGlnCysSerSerGluCysGlnAsnArgPheProGlyCys
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                                                     GlnProCysAspHisProArgGlnProCysAspSerSerCysProCysVallleAlaGln
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The invention relates to a novel method for diagnosing cancer in a mammal. The method comprises determining amplification of specific gen given in the specification, in the genome of a mammal. The invention further comprises methods for: diagnosing cancer or a pre-cancerous condition in a mammal; inhibiting cancer or a pre-cancerous condition a mammal; identifying an agent having therapeutic activity in human patient; identifying an anti-neoplastic agent; determining the

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cancerous status of a cell; identifying a compound as an anti-neoplastic agent; treating cancer; monitoring the progress of cancer therapy in a patient; determining the likelihood of success of cancer therapy in a patient; producing test data with respect to the anti-neoplastic activity of a compound; and determining the progress of a treatment for cancer in a patient following commencement of a cancer treatment on the patient. The methods and compositions of the invention have cytostatic activity and may be used in gene therapy. The method is useful in diagnosing or treating cancer in a mammal. This polynucleotide sequence represents a gene over-expressed in a cancerous cell, used in the novel cancer diagnosis method of the invention.
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                                                                                                                                AATTTTTGTGAAAAGTTTTTGTCAATGTAGTTCAGAGTGTCAAAACCGCTTTCCGGGATGC
                                                                                                                                            AsnPheCysGluLysPheCysGlnCysSerSerGluCysGlnAsnArgPheProGlyCys 560
                                                                                                                                                                              CAACCCTGTGATCATCCACGGCAGCCTTGTGACAGTTCGTGCCCCTTGTGATAGCACAA
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                                                          The invention relates to a novel method for diagnosing cancer in a camemal. The method comprises determining amplification of specific genes, complete in the specification, in the genome of a mammal. The invention comprises methods for: diagnosing cancer or a pre-cancerous condition in a mammal; inhibiting cancer or a pre-cancerous condition in a mammal; inhibiting cancer or a pre-cancerous condition in a mammal in cell; identifying an agent having therapeutic activity in a common patient; identifying an anti-neoplastic agent; determining the cancerous status of a cell; identifying a compound as an anti-neoplastic agent; treating cancer; monitoring the progress of cancer therapy in a companient; determining the likelihood of success of cancer therapy in a patient; producing test data with respect to the anti-neoplastic activity of a compound; and determining the progress of a treatment for cancer in a patient following commencement of a cancer treatment on the patient.

The methods and compositions of the invention have cytostatic activity and mamy be used in gene therapy. The method is useful in diagnosing or treating cancer in a mammal. This polynucleotide sequence represents a composition of the invention and in the novel cancer in a mammal in the invention in the novel cancer in a mammal in the invention in the novel cancer in a mammal in the invention in the novel cancer in a cancer in a cancer cancer in a cancer cancer in a cancer cancer in a cancer cancer in a cancer cancer in a cancer cancer in a cancer cancer in a cancer cancer in a cancer cancer in a cancer cancer cancer cancer cancer cancer cancer in a cancer cancer cancer in a cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer cancer c
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                                                                                    ThrProAsnIleAspGlyProAsnAlaLysSerValGlnArgGluGlnSerLeuHisSer
                                                                                                                                        LysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuProProGluCys
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Early detection of soft tissue sarcoma comprises determining expression of a gene in a first soft tissue sample and a normal soft tissue sample and comparing the gene expression, also useful in treating soft tissue

WPI; 2004-441208/41

Example 2; SEQ ID NO 5458; 210pp; English.

The invention relates to a novel method for detecting soft tissue sarcoma which comprises obtaining a first soft tissue sample from an individual and a normal soft tissue sample from the same or different individual, determining the expression of a gene in both samples and comparing the expression in the first soft tissue samples and comparing the presence of soft tissue sarcoma. The method of the invention has evolutionally of sarcoma, possibly via gene therapy or vaccine production. The nucleic sarcoma, possibly via gene therapy or vaccine production. The nucleic sacid sequences may be useful in diagnostic and screening applications. The current sequence is that of a human soft tissue sarcoma-upregulated DNA of the invention. The current sequence is not shown within the specification per se but was submitted in CD format by the inventor. ı, 0 ü 0 Other;

BP; 865 A; 547 ç 658 G; 641

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21 SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArgAlaAspGluValLysSer 40	167 ATGGGCCAGACTGGGAAGAAATCTGAGAAGGGACCAGTTTGTTGGCGGAAGCGTGTAAAA 226	1 MetGlyGlnThrGlyLysLysScrGluLysGlyProValCysTrpArgLysArgValLys 20
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	381 AspargGluAlaGlyThrGluThrGlyGlyGluAsnAsnAspLysGluGluGluGluGluLys 400
	361 AsnSerSerArgProSerThrProThrIleAsnValLeuGluSerLysAspThrAspSer 380
	341 GluargileLysThrProProLysArgProGlyGlyArgArgArgArgLeuProAsn 360
	321 GlyProGlnCysTyrGlnHisLeuGluGlyAlaLysGluPheAlaAlaAlaLeuThrAla 340
	301 AlaThrProAsnThrTyrLysArgLysAsnThrGluThrAlaLeuAspAsnLysProCys 320
	281 PheHisThrLeuPheCysArgArgCysPheLysTyrAspCysPheLeuHisDroPheHis 300 1007 TTTCATACGCTTTTCTGTAGGCGATGTTTTAAATATGACTGCTTCCTACATCCTTTTCAT 1066
	261 ThrProAsnIleAspGlyProAsnAlaLysSerValGlnArgGluGlnSerLeuHisSer 280
	241 LysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuProProGluCys 260
	221 AspLysIlePheGluAlaIleSerSerMetPheProAspLysGlyThrAlaGluGluLeu 240
	201 LybaspleuGluaspHisargAspaspLysGluSerArgProProArgLysPheProSer 220 767 AAAGATCTGGAGGATCACCGAGATGATAAAGAAAGCCGCCCACCTCGGAAATTTCCTTCT 826
· · · · · · · · · · · · · · · · · · ·	181 Tyrasnaspaspaspaspaspaspaspaspasperglyaspasperglugluargglugluiysgln 200
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	141 GInabpGlyThrPheIleGluGluLeuIleLysasnTyrAspGlyLysValHisGlyAsp 160
	121 MetValGluAspGluThrValLeuHisAsnIleProTyrMetGlyAspGluValLeuAsp 140
	101 LeuAsnAlaValAlaSerValProIleMetTyrSerTrpSerProLeuGlnGlnAsnPhe 120
	81 ArgGluCysSerValThrSerAspLeuAspPheProThrGlnValIleProLeuLysThr 100
	61 LysGlnArgArgIleGlnProValHisIleLeuThrSerValSerSerLeuArgGlyThr 80
<u> </u>	41 MetPheSerSerAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnGluTrp 60
	227 TCAGAGTACATGCGACTGAGACAGCTCAAGAGGTTCAGACGAGCTGATGAAGTAAAGAGT 286

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Human; STAT6-activating protein; drug screening; activator; inhibitor; allergic disease; inflammation; autoimmune disease; diabetes;

Human STAT6-activating protein-encoding cDNA, SEQ ID NO:231

26-FEB-2004 ADG10641;

(first entry)

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                                                                                                                                                                                                                                                                                                                                                        The invention relates to 242 human STAT6-activating proteins and cDNAs encoding them (ADG10411-ADG10894) and to sequences with 95% or more homology to the STAT6-activating proteins and their encoding nucleic acids. The invention also relates to recombinant vectors and host cells comprising a STAT6-activating protein encoding nucleic acid; the recombinant production of a STAT6-activating protein; antisense oligonucleotides and ribozymes targeted to nucleic acids encoding a STAT6-activating protein; an antibody methods of screening for activators or inhibitors of STAT6-activating more proteins; drug compositions comprising a modulator of STAT6-activating proteins; drug compositions and methods of treating patients by protein activity or expression, and modulators of treating proteins, nucleic acids encoding them, and modulators of their activity or expression are useful in the diagnosis and treatment of allergic activating and allergic acids encoding them addiseases diabetes hoperlibidamia.
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30-AUG-2001;
10-OCT-2001;
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                                                                                                                                                                                                                                                                                                                     diseases, inflammation, autoimmune diseases, diabetes, hyperlipidaemia, cancer, infections (e.g., HIV), cancer and disorders associated with Th1 hyperfunction. The present sequence is related to the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STAT6-activating proteins and encoded genes, applicable in diagnosis and developing drugs to treat allergic diseases, inflammations, autoimmune diseases, diabetes, hyperlipidemia, infections e.g. HIV, a
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CC The invention relates to a method for detecting a lung cancer-associated CC transcript in a cell from a patient, comprising contacting a biological CC sample from the patient with a polynucleotide that selectively hybridises CC to a sequence that is at least 80 % identical to a gene that exhibits CC increased or decreased expression in lung cancer samples. Lung cancer-CC associated polynucleotides and polypeptides are used for identifying a CC compound that modulates a lung cancer-associated polypeptide, for CC compound that modulates a lung cancer-associated cell to treat lung cancer in a patient and for treating a mammal having lung cancer by CC cancer in a patient and for treating a mammal having lung cancer by CC contracting lung cancer, such as small cell lung cancer, non-small cell CC for treating lung cancer, such as small cell lung cancer, non-small cell CC for general bronchitis, chronic obstructive pulmonary disease, fibrosis, CC emphysema, bronchitis, chronic obstructive pulmonary fibrosis, asthma and CC bronchiectasis. The genes, polynucleotides and polypeptides are useful CC compounds that modulate lung cancer, such as antibodies. Sequences CC ABX76124-ABX76474 represent lung cancer associated polynucleotides of the compounds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-MAY-2001; 2001US-0290492P.
09-NOV-2001; 2001US-0339245P.
13-NOV-2001; 2001US-0350666P.
29-NOV-2001; 2001US-0334370P.
12-APR-2002; 2002US-0372246P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Detecting a lung cancer-associated transcript in a cell from a for treating lung cancer, by contacting a biological sample fro patient with a polynucleotide that exhibits increased or decrea expression in lung cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim
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Sequence 2576 BP; 826 A. 513 Ç 612 <u>ن</u> 625 Η, 0 U; 0 Other;

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                                  LysAspGluThrSerSerSerSerGluAlaAsnSerArgCysGlnThrProIleLysMet
                                                                      AspargGluAlaGlyThrGluThrGlyGlyGluAsnAsnAspLysGluGluGluGluLys
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              GlyAsnLysIleArgPheAlaAsnHisSerValAsnProAsnCysTyrAlaLysVal 699
                                                      TyrMetCysSerPheLeuPheAsnLeuAsnAspPheValValAspAlaThrArgLys 680
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GGTAACAAAATTCGTTTTGCAAATCATTCGGTAAATCCAAACTGCTATGCAAAAGTT 2154
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ADK66988 standard; DNA; 2576

ADK66988;

06-MAY-2004 (first entry)

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Gene #78 for inhibitory RNA to manipulate stem cell phenotype

ds; gene; inhibitory RNA; RNAi; Notch signaling target gene; phenotype;
pluripotent stem cell.

Homo sapiens

WO2003068961-A2

21-AUG-2003

12-FEB-2003; 2003WO-GB000579.

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Alignment
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to an inhibitory RNA (RNAi) molecule derived from a nucleic acid molecule comprising a defined nucleic acid sequences given in the specification or a sequence which hybridizes to the sequences and encodes a Notch signaling target gene or which is a degenerate as a result of the genetic code of the sequences. The methods and compositions of the present invention are useful for manipulating the phenotype of stem cells, preferably pluripotent stem cells. This sequence corresponds to one of the nucleic acid molecules of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 2576
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13-FEB-2002;
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                                                                                                   ATGGTGGAAGATGAAACTGTTTTACATAACATTCCTTATATGGGAGATGAAGTTTTAGAT
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                                  GlnProCysAspHisProArgGlnProCysAspSerSerCysProCysValIleAlaGln
                                                                  GCACACTGCAGAAAGATACAGCTGAAAAAAGGACGGCTCCTCTAACCATGTTTACAACTAT
                                                                                 AlaHisCysArgLysIleGlnLeuLysLysAspGlySerSerAsnHisValTyrAsnTyr
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21-NOV-2001;
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03-DEC-2001;
14-DEC-2001;
08-TAN-2002;
10-JAN-2002;
10-FEB-2002;
13-FEB-2002;
20-FEB-2002;
29-MAR-2002;
12-APR-2002;
12-APR-2002;
15-JUN-2002;
15-JUN-2002;
16-JUN-2002;
16-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         retinal neovascularistaion syndrome; scarring; uterine fibroid; detection; diagnosis; prognosis; drug screening; drug targeting; wound healing; contraception; cytostatic; cardiant; immunomodulatory; vulnerary; gene therapy; vaccine; gene; 88.
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2001US-033439P.
2001US-033439P.
2001US-034731P.
2002US-034731P.
2002US-034731P.
2002US-034731P.
2002US-0355250P.
2002US-0356714P.
2002US-0356714P.
2002US-0359077P.
2002US-0370110P.
2002US-0370110P.
2002US-0370110P.
2002US-0370110P.
2002US-036839P.
2002US-0396839P.
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ArgGluCysSerValThrSerAspLeuAspPheProThrGlnValIleProLeuLysThr

LysGlnArgArgIleGlnProValHisIleLeuThrSerValSerSerLeuArgGlyThr ATGTTTAGTTCCAATCGTCAGAAAATTTTGGAAAGAACGGAAATCTTAAACCAAGAATGG

298

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121

LeuAsnAlaValAlaSerValProIleMetTyrSerTrpSerProLeuGlnGlnAsnPhe

120 357 100 297 80

140 417 S

101

358

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238

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60 177 40 117 20

237

SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArgAlaAspGluValLysSer ATGGGCCAGACTGGGAAGAAATCTGAGAAGGGACCAGTTTGTTGGCGGAAGCGTGTAAAA MetGlyGlnThrGlyLy8Ly8SerGluLy8GlyProValCy8TrpArgLy8ArgValLy8

118

58 21

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x ADN39391 (1-2576)

Gaps:

Best Local S Query Match:

Percent Similarity: Best Local Similarity:

6.8e-282 3802.00 99.9% 99.9% 99.9%

Length:
Matches:
Conservative:
Mismatches:
Indels:

2576 698 0 1 0

Alignment Pred. No.:

Score:

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The invention relates to nucleic acids and proteins (ADN38683-ADN40064)
CC whose expression is upregulated or downregulated in specific cancers or
CC other diseases such as angiogenic or fibrotic disorders, and to methods
CC of determining the presence or absence of a patiblogical cell in a
CC patient by detecting a nucleic acid at least 80% identical to those of
CC the invention or by detecting a polypeptide of the invention. The
CC invention also relates to expression vectors and host cells comprising a
CC polypeptide of the invention; antibodies which specifically bind a
CC polypeptide of the invention; use of such antibodies for drug targeting;
CC and methods of screening for modulators of activity or expression of the
CC polypeptides and mucleic acids. The nucleic acids, polypeptides,
CC antibodies and methods are useful for diagnosing, prognosing and treating
CC cancer and other conditions such as psoriasis, ischaemia, heart disease,
CC atheroselerosis, inflammatory diseases, autoimmine diseases, retinal
CC neovascularistaion syndromes, scarring and uterine fibroids. They may
CC also be useful in wound healing and in contraception. The present
                                   sequence represents a nucleic acid sequence of
                                                                                                                                                                                                                                                                                                                                                                               Claim 8; SEQ ID NO B75; 1385pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                 Determining the presence or absence of a pathological cell in a useful for diagnosing, prognosing or treating cancer, comprises a nucleic acid in a biological sample.
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09-SEP-2002;
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Murray R,
2576 BP;
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2002US-0409450P.
826 A; 513 C;
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612 G; 625 T;
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B, Zlotnik
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                                                    AAAACATGTAGACAGGTGTATGAGTTTAGAGTCAAAGAATCTAGCATCATÁGCTCCAGCT
                                                                   LysThrCysArgGlnValTyrGluPheArgValLysGluSerSerIleIleAlaProAla
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15-JAN-2004; 2004WO-US001100

15-JAN-2003; 2003US-00342887.

(ROSE-) ROSETTA INPHARMATICS LLC. NETHERLANDS CANCER INST.

Van't Veer LJ, He

WPI; 2004-593473/57.

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Classifying a breast cancer patient according to prognosis determining the similarity between the level of expression five genes in a cell sample taken from patient, to control s comprises n of each of l levels.

Oy 221 Asp Db 718 GAT	Oy 201 Lys	Qy 181 Tyr. Db 598 TAT	Oy 161 ArgG Db 538 AGAG	Qy 141 GlnAs Db 478 CAGGA	Qy 121 Met Db 418 ATG	Qy 101 Leu 	Qy 81 Arg	Qy 61 Lys Db 238 AAA	Qy 41 Met Db 178 ATG	Qy 21 Ser Db 118 TCA	Qy 1 Met	US-10-773-302-2_C	Alignment Scores: Pred. No.: Score: Percent Similarit: Best Local Simila Query Match: DB:	Sequence 257	PS Disclosure; i
LysilePheGluAlaileSe; AAAATTTTGGAGGCCATTTC	AspLeuGluAspHisArg 	AsnAspAspAspAspAsp 	lucysG AATGTG	Teery 	ValGluaspGluThrValL 	LeuAsnAlaValAlaSerValP CTGAATGCAGTTGCTTCAGTAC	ArgGluCysSerValThrSerAspLeuAspPheP 	GlnArgArgIleGlnProv CAGCGAAGGATACAGCCTG	PheSerSerAsnArgGlnL 	GluTyrMetArgLeuArgG 	GlyGlnThrGlyLy8Ly8S GGCCAGACTGGGAAGAAAT	_COPY_1_699 (1-699) x	8: 6.8e-282 3802.00 ty: 99.9% arity: 99.9% 99.8%	6 BP; 826 A; 513 C;	SEQ ID NO 1043; 226; or relates to a meth prognosis by deter f each of five gene n, in a cell sample its of expression for larity value. The mot according to proor data analysis us methods of the inve in the method of th
erSermet PheProAspLysG1 CCTCAATGTTTCCAGATAAGGC	}AврАврLysGluSerArgProP; 	DASPG1YASPASPP GATGGAGACGATC	1. PheIleAsnAspGluIlePheValGluLeuValAsnAla: 	hrPheIleGluGluLeuIleLysAsnTyrAspGlyLysValHisGlyAs 	MetValGluAspGluThrValLeuHisAsmIleProTyrMetGlyAspGluValLeuAsp 	laSerValProIleMetTyrSerTrpSerProLeuGlnGlnAsnPhe 	spLeuAspPheProThrGln' 	LygGlnArgArgIleGlnProValHisIleLeuThrSerValSerSerLeuAr 	etPheSerSerAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnG 	erGluTyrMetArgLeuArgGlnLeuLysArgPheArgArgAlaAspGluVal 	etGlyGlnThrGlyLysLysSerGluLysGlyProValCysTrpArgLy 	ADR25182 (1-2576)	Length: 25: Matches: 69: Conservative: 0 Mismatches: 1 Indels: 0 Gaps: 0	612 G; 625 T; 0 U;	Disclosure; SEQ ID NO 1043; 226pp; English. The invention relates to a method of classifying a breast cancer patient according to prognosis by determining the similarity between the level expression of each of five genes for which markers are listed in the specification, in a cell sample taken from the breast cancer patient control levels of expression for each respective five genes to obtain a patient similarity value. The methods are useful for classifying a breat cancer patient according to prognosis. Kits and computer program product are useful for data analysis using the diagnostic, prognostic and statistical methods of the invention. This sequence corresponds to a marker used in the method of the invention.
GlyThrAlaGluGluLeu 240 GCACAGCAGAAGAACTA 777	ProArgLysPheProSer 220 CCTCGGAAATTTCCTTCT 717	roGluGluArgGluGluLy8Gln 200 CTGAAGAAAGAAAAAGCAG 657	ValAsnAlaLeuGlyGln 180 GTGAATGCCCTTGGTCAA 597	GlyLysValHisGlyAsp 16 GGGAAAGTACACGGGGAT 53	GlyAspGluValLeuAsp 14 GGAGATGAAGTTTTAGAT 47	ProLeuGlnGlnAsnPhe 120 CCCTACAGCAGAATTTT 417	roThrGlnVallleProLeuLy8Thr 10 caacacaagTcaTcccaTTaaaGaCT 35	SerSerLeuArgGlyThr 80 AGCTCATTGCGCGGGACT 29	IleLeuAsnGlnGluTrp 60 ATCTTAAACCAAGAATGG 237	AlaAspGluValLysSer 40 	TrpArgLysArgValLys 20 		76 8	0 Other;	reast cancer patient by between the level of are listed in the streamer patient, to genes to obtain a relassifying a breast puter program products prognostic and corresponds to a

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This invention relates to a novel human diaphanous-3 (DIAPH3) protein and the encoding polynucleotide thereof. Specifically, it refers to the use of DIAPH3 cDNA in the prognosis of breast cancer, such that the DIAPH3 CDNA in the prognosis of breast cancer drugs or for the identification of molecules with anti-cancer activity. The present invention provides antibodies that specifically bind to the DIAPH3 correction, as well as methods to identify an agent that modulates the binding of DIAPH3 to a binding partner. In particular it describes measuring the expression level of DIAPH3 using hybridization oligos and comparing this with a control expression level, where a raised expression level indicates a poor prognosis with respect to breast cancer. As such, it also provides small interfering RNA oligos that can hybridize to the DIAPH3 gene and inhibit expression thereof. The peptide and nucleic acid sequences of this invention are useful as markers to differentiate patients with a good prognosis from those with poor prognosis for breast cancer and are useful as targets for screening assays designed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New purified diaphanous-3 (DIAPH3) peptides and nucleic acids, useful targets for screening assays designed to identify inhibitors or modulators of DIAPH3 activity, which are useful for treating breast
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-MAY-2003;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         used for treating breast cancer. Accordingly, they can be used in gene therapy and exhibit cytostatic activity. This polynucleotide sequence a human gene marker that when expression is upregulated in a patient sample it is correlated with a poor prognosis for breast cancer, given an exemplification of the invention.
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            ThrProAsnIleAspGlyProAsnAlaLysSerValGlnArgGluGlnSerLeuHisSer
                                                                                            GATAAAATTTTGGAGGCCATTTCCTCAATGTTTCCAGATAAGGGCACAGCAGAAGAACTA
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The invention relates to an agent for the prophylaxis and therapy of concer comprising a compound which inhibite the activity or expression of CC cancer comprising a compound which inhibite the activity or expression of CC EZH2 inhibitors include anti-EZH2 antibodies and EZH2 antisense nucleic cacids. The invention also relates to a kit for screening for inhibitors of EZH2 activity or expression. EZH2 is a component of a complex with CC histone methyltransferase activity which methylates histone H3 on lysine CC residues at position 9 and/or 27. It has been found to be deregulated in CC various tumours, and acts as a mediator of tumorigenesis, being able to CC reverse repression of cyclin A which in turn mediates cell cycle advancement. The agent of the invention can be used for preventing. CC treating and diagnosing cancers such as colorectal cancer, breast cancer, cancer and ovarian cancer, and can also be used in drug screening. The agent of the invention is safe and less toxic than CC prior art cancer prophylactic/therapeutic agents. The present sequence

Disclosure; SEQ ID NO 2; 102pp; Japanese.

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prophylaxis;
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               The invention relates to an agent for the prophylaxis and therapy of cancer comprising a compound which inhibits the activity or expression of CC human EZH2 (enhancer of zeste homologue 2), resulting in apoptosis. The CC EZH2 inhibitors include anti-EZH2 antibodies and EZH2 antisense nucleic acids. The invention also relates to a kit for screening for inhibitors CC of EZH2 activity or expression. EZH2 is a component of a complex with histone methyltransferase activity which methylates histone H3 on lysine CC residues at position 9 and/or 27. It has been found to be deregulated in CC various tumours, and acts as a mediator of tumorisenesis, being able to CC various tumours, and acts as a mediator of tumorisenesis, being able to CC various tumours, and acts as a mediator of tumorisenesis, being able to CC various tumours, and creas as a mediator of tumorisenesis, being able to CC various tumours, and creas as a mediator of tumorisenesis, being able to CC various tumours, and creas as a mediator of tumorisenesis, being able to CC various tumours, and creas as a mediator of the invention can be used for preventing, treating and diagnosing cancers such as colorectal cancer, breast cancer, CC tumorisenise and less toxic than confidence in drug screening. The agent of the invention is safe and less toxic than confidence in drug screening. The agent of the invention is safe and less toxic than confidence in drug screening. The agent of the invention is safe and less toxic than confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence in the confidence i
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2146	7 GAATTCATCTCAGAATACTGTGGAGAGATTATTTCTCAAGATGAAGCTGACAGAAGAGG
675	6 LysValTyrAspLysTyrMetCysSerPheLeuPheAsnLeuAsnAsnAspPheValVa
5	636 GluPheIleSerGluTyrCysGlyGluIleIleSerGlnAspGluAlaAspArgArgGly
635 2086	16 LeuAlaProSerAspValAlaGlyTrpGlyIle
615	596 SerlybäbnvalSerCyblybäbnCybSerlleGlnärgGlySerlyblybHibleuleu
2026	
595	6 AlavalargGlucybaspProaspLeuCysLeuThrCysGlyalaalaaspHis
1966	
575	556 ArgPheProGlyCysArgCysLysAlaGlnCysAsnThrLysGlnCysProCysTyrLeu
1906	
555 1846	36 CYSVall
535 1786	516 HisvaltyrasntyrgindrocysasphisdroarggindrocysaspserSerCysdro
515	496 HisargLeuTrpalaalaHisCysargLysIleGlnLeuLysLysaspGlySerSerAsn
1726	
495	476 IleIleAlaProAlaFroAlaGluAspValAspThrProProArgLysLysLysLyslys
1666	
475 1606	
455	436 GlualaSerMetPheArgValLeuIleGlyThrTyrTyrAspAsnPheCysAlaIleAla
1546	
435	416 ThrProlleLyBMetLyBProAsnIleGluProProGluAsnValGluTrpSerGlyAla
1486	
415	396 GluGluGluGluLysLysAspGluThrSerSerSerSerGluAlaAsnSerArgCysGln
1426	
395	376 LysaspThraspSeraspArgGluAlaGlyThrGluThrGlyGlyGluAsnAsnAspLys
1366	
375	356 GlyargLeuProAsnAsnSerSerArgProSerThrProThrIleAsnValLeuGluSer
1306	
355 1246	336 AlaalaLeuThralaGluArgIleLy8ThrProProLy8ArgProGlyGlyArgArgArg
335	316 AspAsnLysProCysGlyProGlnCysTyrGlnHisLeuGluGlyAlaLysGluPheAla
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315	298PropheHisAlaThrProAsnThrTyrLysArgLysAsnThrGluThrAlaLeu
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AGTT 2278	/8Val 699	CCGCAAGGGTAACAAA	nrArgLysGlyAsnLys	TGATAAATACATGTGC
		ATTCGTTTTGCAAATC		AGCTTTCTGTTCAACT
		2207 GATGCAACCCGCAAGGGTAACAAAATTCGTTTTTGCAAATCATTCGGTAAATCCAAACTGC 2266	676 AspAlaThrArgLysGlyAsnLysIleArgPheAlaAsnHisSerValAsnProAsnCys 695	2147 AAAGTGTATGATAAATACATGTGCAGCTTTCTGTTCAACCTTGAACAATGATTTTGTGGTG 2206
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Search completed: August 13, 2006, 13:50:03 Job time: 1126.99 secs

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Command line parameters:

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-Q=abss/ABSSWEB_spool/US10773302/runat_11082006_140227_16665/app_query.fasta_1
-Q=abss/ABSSWEB_spool/US10773302/runat_11082006_140227_16665/app_query.fasta_1
-DB=EST -QPMT=fastap -SUPFIX=p2n.rst -MINNATCH=0.1 -LOOPEL-0 -LOOPEXX=0
-UNITS=bbts -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45
-DOCALIGN=200 -THF_SCORE=pct -THR_MAX=100 -THR MIN=0 -ALIGN=15 -MODE=LOCAL
-OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=2000000000 -HOST=abss05p
-USER=US10773302_@CGN 1_1_12176_@runat_11082006_140227_16665 -NCPU=6 -ICPU=3
-NO_MAAP -NEG_SCORES=0 -WALT -DSPELOCK=100 -LONGLOG -DEV_TIMEOUT=120
-MARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -PGAPOP=6 -FGAPEXT=7
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ALIGNMENTS

REFERENCE AUTHORS REFERENCE AUTHORS TITLE JOURNAL PUBMED SOURCE ORGANISM LOCUS DEFINITION RESULT 1 AK157853 ACCESSION VERSION REFERENCE KEYWORDS JOURNAL PUBMED TITLE AUTHORS Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes Genome Res. 10 (10), 1617-1630 (2000) Carninci, P. and Hayashizaki, Y.
High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999) 2652 bp mRNA linear HTC 21-SBP-2005 Mus musculus erythroblast CDNA, RIKEN full-length enriched library, clone:KOC0026B09 product:enhancer of zeste homolog 2 (Drosophila), full insert sequence. Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi; Muroidea; Muridae; Murinae; Mus. Mus musculus HTC; CAP trapper. Mus musculus (house mouse) AK157853.1 GI:74186125 Sasaki, N., Carninci, P.,

JOURNAL PUBMED REFERENCE

TITLE

AUTHORS

```
Nikaido, I., Osato, N., Saito, R., Suzuki, H., Yamanaka, I.,

Kiyosawa, H., Yagi, K., Tomaru, Y., Hasegawa, Y., Nogami, A.,

Kiyosawa, H., Yagi, K., Tomaru, Y., Hasegawa, Y., Nogami, A.,

Schombach, C., Gojobori, T., Baldarelli, R., Hill, D.P., Bult, C.,

Hume, D.A., Quackenbush, J., Schriml, L.M., Kanagin, A., Matsuda, H.,

Batalov, S., Beisel, K.W., Blake, J.A., Bradt, D., Brusic, V.,

Chothia, C., Corbani, L.E., Cousins, S., Dalla, B., Dragani, T.A.,

Pletcher, C.P., Porreet, A., Prazer, K.S., Gassterland, T.,

Fletcher, C.P., Porreet, A., Prazer, K.S., Gassterland, T.,

Gustincich, S., Hirokawa, N., Jackson, J.J., Jarvis, B.D., Kanai, A.,

Kawaji, H., Kawasawa, Y., Kedzierski, R.M., King, B.L., Konagaya, A.,

Kurochkin, I.V., Lee, Y., Lenhard, B., Lyons, P.A., Maglott, D.R.,

Maltais, L., Marchionni, L., McKenzie, L., Miki, H., Nagashima, T.,

Numata, K., Okido, T., Pavan, W.J., Pertea, G., Peeole, G.,

Petrovsky, N., Pillai, R., Pontius, J.U., Qi, D., Ramachandran, S.,

Petrovsky, N., Pillai, R., Pontius, J.U., Qi, D., Ramachandran, S.,

Ravasi, T., Reed, J.C., Reed, D.J., Reid, J., Ring, B.Z., Ringwald, M.,

Sandelin, A., Schneider, C., Semple, C.A., Setou, M., Shimada, K.,

Verardo, R., Wagner, L., Wahlestedt, C., Wang, Y., Watanabe, Y.,

Wells, C., Wilming, L., G., Wynshaw-Boris, A., Yanagisawa, M., Yang, I.,

Yang, L., Yuan, Z., Zavolan, M., Zhu, Y., Zimmer, A., Carninci, P.,

Hayatsu, N., Hirozane, Klishikawa, T., Konno, H., Nakamura, M.,

Sakazume, N., Sato, K., Shiraki, T., Waki, K., Kawai, J., Aizawa, K.,

Shinagawa, A., Yasunishi, A., Yoshino, M., Waterston, R., Lander, E.S.,

Shinagawa, A., Yasunishi, A., Yoshino, M., Waterston, R., Lander, E.S.,

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Konno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishine, T., Hazada, A., Yamamoto, R., Matsumoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, B., Watshiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and Hayushizaki, Y. RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer Genome Res. 10 (11), 1757-1771 (2000)
Carninci, P., Kasukawa, T., Katayama, S., Gough, J., Frith, M.C., Maeda, N., Oyama, R., Ravasi, T., Lenhard, B., Wells, Kodzius, R., Shimokawa, K., Bajic, V.B., Brenner, S.E., Batalov, S., Forrest, A.R., Zavolan, M., Davis, M.J., Wilming, L.G., Aidinis, V., Allen, J.E.,
                                                                                                                                                                                                                                                                                                                                               Analysis of the mouse transcriptome based of 60,770 full-length cDNAs Nature 420 (6915), 563-573 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Functional annotation of a full-length mouse cDNA collection Nature 409 (6821), 685-690 (2001)
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prepare mouse tissues. Tissues were provided by Hiromitsu Nakauchi (Center for Experimental Medicine, Institute of Medical Science, Uni-Tokyo 4-6-1, Shirokane-dai, Minato-ku, Tokyo, 108-8639,

108-8639, JAPAN

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Ambesi-Implombato, A., Apweiler, R., Aturaliya, R.N., Bailey, T.L., Bansal, M., Baxter, L., Beisel, K.W., Bersano, T., Bono, H., Chalk, A.M., Chiuk, K.P., Choudhary, V., Christoffels, A., Clutterbuck, D.R., Crowe, M.L., Dalla, B., Dalrymple, B.P., de Bono, B., Della Gatta, G., di Bernardo, D., Down, T., Engstrom, P., Rejdolini, M., Faulkner, G., Fletcher, C.F., Fukushima, T., Furuno, M., Futaki, S., Gariboldi, M., Georgii-Hemming, P., Gingeras, T.R., Gojobori, T., Green, R.E., Georgii-Hemming, P., Gingeras, T.R., Gojobori, T., Green, R.E., Jakt, M., Kanpain, A., Katoh, M., Kawasawa, Y., Kalso, J., Kitamura, H., Jakt, M., Kanpain, A., Katoh, M., Kawasawa, Y., Kalso, J., Kitamura, H., Jakt, M., Kanpain, A., Katoh, M., Kawasawa, Y., Kalso, J., Kitamura, H., Jakt, M., Kanpain, A., Katoh, M., Kawasawa, Y., Kalso, J., Kitamura, H., Jakt, M., Kanpain, A., Katoh, M., Kawasawa, Y., Kalso, J., Kitamura, H., Jakt, M., Kanpain, A., Katoh, M., Madera, M., Makera, M., Martika, J., Malis, J., Maldilla, J., Makano, M., Makeuchi, L., Liu, J., Kitamura, H., Karson, M., Martika, J., Makano, M., Makauchi, L., Morris, M., Mishilyuchi, S., Mishikawa, S., Nori, F., Ohara, O., Okazaki, Y., Orlando, V., Pang, K.C., Pavan, M.J., Pavesi, G., Petrovsky, N., Plazza, S., Reed, J., Reid, J.F., Ring, B. Z., Ringwald, M., Rost, B., Rost, B., Sandelin, A., Schenjad, M., Sperling, S., Stupka, B., Sugiura, K., Sultana, R., Sinlada, H., Shimada, K., Silva, D., Sessa, L., Sheng, Y., Shibata, Y., Shimada, H., Shimada, K., Silva, D., Sessa, L., Tang, S., Tang, S., Tang, S., Taylor, M.S., Taylor, M.S., Taylor, M.S., Taylor, M.S., Taylor, M.S., Taylor, M.S., Taylor, M.S., Taylor, M.S., Taylor, M.S., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M., Jake, M.,
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                                                                                                                                                                                                 Submitted (30-MAR-2004) Yoshihide Hayashizaki, The Institute of physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suchiro-cho, Tsurumi-ku, Yokohama, Kanagawa, 230-0045, Japan (B-mail:genome-res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/, Tel:81-45-503-9222, Pax:81-45-503-9216)
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cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to
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ArgGluCysGlyPheIleAsnAspGluIlePheValGluLeuValAsnAlaLeuGlyGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MetGlyGlnThrGlyLysLysSerGluLysGlyProValCysTrpArgLysArgValLys
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/db_xref="gi:74186126"
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2 (Drosophila) (MGD|MGI:107940 GB|NM_007971, evidence:
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/strain="C57BL/60"
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Direct Submission
                                                                                                                                                                                                            Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive, Rockville, MD 20850, USA
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Science 302 (5652), 1960-1963 (2003)
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Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.
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Homo sapiens EZH2 gene,
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Mammalia; Butheria; Buarchontoglires; Primates; Catarrhini;
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                                                                                                                                                                     sequence was made by sequencing based on alignment.
                                           /organism="Homo sapiens"
/mol type="genomic DNA"
/db xref="taxon:9606"
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/gene="BZH2"
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                                                                                                                                                      ThrProAsnIleAspGlyProAsnAlaLysSerValGlnArgGluGlnSerLeuHisSer
                                                                                                                                                                                                                                      LysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuProProGluCys
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      AlaThrProAsnThrTyrLysArgLysAsnThrGluThrAlaLeuAspAsnLysProCys
                                                                     PheHisThrLeuPheCysArgArgCysPheLysTyrAspCysPheLeuHisProPheHis
                                                                                                                                  GATAAAATTTTTGAAGCCATTTCCTCAATGTTTCCAGATAAGGGCACAGCAGAAGAACTA
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                                                                                                                                               ValAlaGlyTrpGlyIlePheIleLysAspProValGlnLysAsnGluPheIleSerGlu
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAACCCTGTGATCATCCACGGCAGCCTTGTGACAGTTCGTGCCCCTTGTGTGATAGCACAA
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                                                                     TyrCysGlyGluIleIleSerGlnAspGluAlaAspArgArgGlyLysValTyrAspLys
                                                                                                                                                                                                                                                                                                                                       CGCTGCAAAGCACAGCAACACCAAGCAGTGCCCGTGCTACCTGGCTGTCCGAGAGTGT
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Mus musculus EZH2 gene, V
genomic survey sequence.
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AY399443.1 GI:39755432
GSS.
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Rockville, MD 20850, USA
This sequence was made by seque
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Direct Submission
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Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.
Inferring nonneutral evolution from human-chimp-mouse orthologous
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Mammalia; Eutheria; Euarchontoglires; Glires; Rodent
Sciurognathi; Murodea; Muridae; Murinae; Mus.
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                                                                    MetPheSerSerAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnGluTrp
                                                                                                                                                                                                                                                                                  MetGlyGlnThrGlyLysSerGluLysGlyProValCysTrpArgLysArgValLys
                                                                                                                                                                                                                                     SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArgAlaAspGluValLysSer
                                  ArgGluCysSerValThrSerAspLeuAspPheProThrGlnVallleProLeuLysThr 100
                                                                                                                                             ATGTTTAGTTCCAATCGTCAGAAAATTTTGGAAAGAACTGAAACCTTAAACCAAGAGTGG
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Location/Qualifiers
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/mol_type="genomic DNA"
/db_xref="taxon:10090"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /gene="BZH2"
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Clark,A.G., Glanowski,S., Nielson,R., Thomas,P., Kejariwal,A., Todd,M.A., Tanenbaum,D.M., Civello,D.R., Lu,F., Murphy,B., Ferriera,S., Wang,G., Zheng,X.H., White,T.J., Sninsky,J.J., Adams,M.D. and Cargill,M.
Direct Submission
Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive,
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Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Todd, M.A., Tanenbaum, C.M., Civello, D.R., Lu, F., Murphy, J.J., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.
Inferring nonneutral evolution from human-chimp-mouse orthologon
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genomic survey sequence.
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Submitted (30-MAR-2004) Yoshihide Hayashizaki, The Institute of Submitted (30-MAR-2004) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, RIKEN Yokohama, 230-0045, Japan (B-mail:genome-res@gsc.riken.jp, URL:http://genome-gsc.riken.jp/, Tel:81-45-503-9222, Pax:81-45-503-9216)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  prepare mouse tissues.

Tissues were provided by Dr. John Todd (Dept. of Medical Genetics Tissues were provided by Dr. John Todd (Dept. of Medical Genetics Wellcome Trust Centre for Molecular Mechanisms in Disease Wellcome Trust/MRC building Addenbrookes Hospital Cambridge) whose assistance we gratefully acknowledge.

Please visit our web site for further details.
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URL:http://fantom.gsc.riken.jp/.
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TPNIDGPNAKSVQRRQSLHSFHTLFCRRCPKYDCFLHPFHATPNVYKRKNKEIKIBPE
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/clone="F630047M06"
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GluGluLeuLysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuPro
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                                                                                      ProPheHisAlaThrProAsnThrTyrLysArgLysAsnThrGluThrAlaLeuAspAsn
                                                                                                                                                                           LeuHisSerPheHisThrLeuPheCysArgArgCysPheLysTyrAspCysPheLeuHis
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                                                                                                                                                                                                                                                                                                                   GACGACATGAAGGAGGTATCGAGAGCTGACAGAGATGTCAGACCCCAATGCACTTCCC
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                                                                       GlnAspGluAlaAspArgArgGlyLysValTyrAspLysTyrMetCysSerPheLeuPhe
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Carninci, P., Shibata, Y., Hayatsu, N., Sugahara, Y., Shibata, K., Itoh, M., Konno, H., Okazaki, Y., Muramatsu, M. and Hayashizaki, Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new Genome Res. 10 (10), 1617-1630 (2000)
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Okazaki,Y., Furuno,M., Kasukawa,T., Adachi,J., Bono,H., Mikaido,I., Osato,N., Satto,R., Suzuki,H., Yamanaka,I., Kiyosawa,H., Yagi,K., Tomaru,Y., Hasegawa,Y., Nogami,A., schonbach,C., Gojobori,T., Baldarelli,R., Hill,D.P., Bul
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High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
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Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia;
Sciurognathi; Muroidea; Muridae; Murinae; Mus.
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                                                                                                                                                                                              full-length mouse cDNA collection (2001)
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Please visit our web site for further details.
URL:http://genome.gsc.riken.jp/.
URL:http://fantom.gsc.riken.jp/.
Location/Qualifiers
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Fax:81-45-503-9216)
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1 (Drosophila) (MGD|MGI:1097695 GB|NM_007970, evidence:
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/strain="C57BL/6J"
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Alignment Scores: 1.92e-210 Length: 4194
Score: 2389.50 Matches: 451
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Best Local Similarity: 63.3% Mismatches: 115
Query Match: 62.7% Indels: 53
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US-10-773-302-2_COPY_1_699 (1-699) x AK140694 (1-4194)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  http://www.rzpd.de/cgi-bin/products/cl.cgi?CloneID=DKFZp469N1815
Purther information about the clone and the sequencing project is available at http://mips.gsf.de/projects/cdna/.
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Pongo pygmaeus
Bukaryota, Metazoa; Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Buarchontoglires, Primates, Catarrhini;
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CR857825
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/clone_lib="469 (synonym: pkid1). Vector pSport1_Sfi; host
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/protein_id="CAH90081.1"
/db_xref="GI:55726635"
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/mol_type="mRNA"
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Okazaki, Y., Furuno, M., Kasukawa, T., Adachi, J., Bono, H., Kondo, S. Nikaido, I., Osato, N., Saito, R., Suzuki, H., Yamanaka, I., Kiyosawa, H., Yagi, K., Tomaru, Y., Hasegawa, Y., Nogami, A., Schonbach, C., Gojobori, T., Baldarelli, R., Hill, D., P., Bult, C., Betalov, S., Beisel, K., Blake, J., Ranapin, A., Matsuda, H., Batelov, S., Beisel, K., Blake, J., Bradt, D., Brusic, V., Chothia, C., Corbani, L.E., Cousins, S., Dalla, E., Dragani, T.A., Chothia, C., Corbani, L.E., Cousins, S., Dalla, E., Dragani, T.A., Fletcher, C.F., Forrest, A., Frazer, K.S., Gaasterland, T., Gariboldi, M., Gissi, C., Godzik, A., Gough, J., Grimmond, S., Gustincich, S., Hirokawa, N., Jackson, I.J., Jarvis, B.D., Kanai, A., Kawaji, H., Kawasawa, Y., Kedzierski, R.M., King, B.L., Konagaya, A., Kurochkin, I.V., Lee, Y., Lenhard, B., Lyons, P.A., Maglott, D.R.,
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cDNA collection II Team and

Kondo, S.,

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Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new Genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus adult male aorta and vein cDNA, RIKEN full-length enriched library, clone:A530023C07 product:enhancer of zeste homolog 1 (Drosophila), full insert sequence.
Shibata,K., Itoh,M., Aizawa,K., Nagaoka,S., Sasaki,N., Carninci,P., Konno,H., Akiyama,J., Nishi,K., Kitsunai,T., Tashiro,H., Itoh,M., Sumi,N., Ishi,Y., Nakamura,S., Hazama,M., Nishine,T., Harada,A., Yamamoto,R., Matsumoto,H., Sakaguchi,S., Ikegami,T., Kashiwagi,K., Pujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E., Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura,S., Kawai,J., Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and Hayashizaki,Y. RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer Genome Res. 10 (11), 1757-1771 (2000)
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High-efficiency full-length cDNA
Meth. Enzymol. 303, 19-44 (1999)
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Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia;
Sciurognathi; Muroidea; Muridae; Murinae; Mus.
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Maltais, J., Marchionni, I., McKenzisch., Miki H. N. Magashima, T.,
Numata K., Okido, T., Fevran, W.J., Ferrea, G., Percover, V. M.
Petrovsky, N., Pillai, R., Pontins, J.U., Qi, D., Ramachandran, S.,
Sardelin, A., Schmeider, C., Semple, C.A., Secol, M., Simedi, K.,
Sandelin, A., Schmeider, C., Semple, C.A., Secol, M., Simedi, K.,
Sandelin, A., Schmeider, C., Semple, C.A., Secol, M., Simedi, K.,
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Wellso, R., Wilming, L.G., Whyshev-Boxi, M., Mayaran, R.,
Wellso, R., Wilming, L.G., Whyshev-Boxi, M., Sand, K., Shibada, K.,
Wellso, R., Wilming, L.G., Whyshev-Boxi, M., Sand, J., Shakara, K.,
Kang, L., Yang, C., Zavada, M., Zahu, K., Zimer, A., Carninoi, P.,
Range, A., Tsamishi, A., Yoshino, M., Sahai, K., Sasad, J., Shibada, K.,
Shimakaw, K., Shibada, S., Hara, A., Hashiname, W., Inocani, K., Ishii, Y.,
Bandokaw, K., Shibada, S., Hara, A., Hashiname, W., Inocani, K., Ishii, Y.,
Bandokaw, K., Shibada, S., Hara, A., Walika, K., Sasad, J., Shibada, K.,
Sandal, M., Shibada, S., Hara, A., Walika, K., Sasad, J., Shibada, K.,
Shimakaw, K., Shibada, S., Hara, A., Walika, J., Sasad, J., Shibada, K.,
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Shimakaw, K., Shibada, S., Hara, A., Walika, J., Sasad, J., Shibada, K.,
Shibadaw, K., Shibada, S., Hara, A., Walikayana, S., Googh, J., Frith, M.C.,
Garriinci, P., Kamakawa, T., Katayana, S., Googh, J., Frith, M.C.,
Shibada, K., Shibada, S., Shibada, K., Shaki, K., Sasad, J., Shibada, K.,
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Please visit our web site for further details.

URL:http://genome.gsc.riken.jp/
URL:http://fantom.gsc.riken.jp/.
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Arakawa, T., Carninci
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Fax:81-45-503-9216)
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KRHAIEGNKKSSKKQPFDDMIFSAIASMPPENGVPDDMKERYRELTEMSDPNALFPGC
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TYFNNFCSIARLLGTKTCKQVFQFAVKESLILKLPTDELMNPAQKKKKKHRLWAAHCR
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/db_xref="FANTOM_DB:A530023C07"
/db_xref="taxon:10090"
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                              206 AATATGGGAGCAAAGGCTCTGTATGTGGCAAATTTTGCAAAGGTTCAAGAAAAAAACCCAA
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55 IleLeuAsnGlnGluTrpLysGlnArgArgIleGlnProValHisIleLeuThrSerVal 74
                                                            35 AlaAspGluValLysSerMetPheSerSerAspArgGlnLysIleLeuGluArgThrGlu 54
                                                                                          TGGAAAAGAAAAGTGAAATCTGAGTATATGCGGCTTCGACAGCTCAAACGGCTCCAGGCA 205
                                                                                                            TrpArgLysArgValLysSerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArg
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2273.50
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Matches:
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Mammalia; Butheria; Buarchontoglires; Glires; Rodentia; Sciurognathi; Muroidea; Muridae; Murinae; Mus. REFERENCE 1 (bases 1 to 2215) AUTHORS Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A.,	ACCESSION AY402398.1 GI:39758384 VERSION AY402398.1 GI:39758384 KEYWORDS GSS. SOURCE Mus musculus (house mouse) ORGANISM Mus musculus Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	z	QY 668 ABRILBUABRABRABPABPAPALVALARIABPALATAL 678	648 2048	Db 1928 CGTGGCCTCAAAAAGCACCTGCTGCTGCTGCTCCGAIGTGGCCGAATGGGGACCTTC 1907 Oy 628 IlelysaspProValGlnLysasnGluPheIleSerGluTyrCysGlyGluIleIleSer 647 Oy	1808 ACCAAGCAATGTCCATGCTACTTGGCAGTTCGTGAGTGTGACCCTGACTTGTGCCTCACC 1808 CYSGlyAlaAlaAspHisTtpAspScrLysAsnValScrCysLysAsnCysScrIleGln	Qy 548 GlnCysSerSerGluCysGlnAsnArgPheProGlyCysArgCysLysAlaGlnCysAsn 567	Qy 508 LeuLysLysAspGlySerSerAsnHisValTyrAsnTyrGlnProCysAspHisProArg 527	Qy 488 ProProArgLysLysLysArgLysHisArgLeuTrpAlaAlaHisCysArgLysIleGln 507	Qy 468 GluPheArgValLy8GluSerSerIleIleAlaProAlaProAlaGluAspValAspThr 487	448 1451	Oy 428 GluAsnValGluTrpSerGlyAlaGluAlaserMetPheArgValLeuIleGlyThrTyr 447	

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Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A.,
Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B.,
Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J.,
Adams, M.D. and Cargill, M.
Direct Submission
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Science 302 (5652), 1960-1963 (2003)
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Inferring nonneutral evolution from human-chimp-mouse orthologous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rockville, MD
          TGAAGAAGAGATGATCCCTGGATCTGTGCTGATCAGCGATGCTGTGTTTCTGGAGCTGGT
                                                                             uAspGlnAspGlyThrPheIleGluGluLeuIleLysAsnTyrAspGlyLysValHisGl
                                                                                                                                 nPheMetValGluAspGluThrValLeuHisAsnIleProTyrMetGlyAspGluValLe
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based on alignment.
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                                                                                        uSerSerIleIleAlaProAlaProAlaGluAspValAspThrProProArgLysLysLy
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rSerAsnHisValTyrAsnTyrGlnProCysAspHisProArgGlnProCysAspSerSe 533
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Submitted (16-NOV-2003) Celera Genomi Rockville, MD 20850, USA
This sequence was made by sequencing them based on alignment.

Location/Qualifiers
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genomic survey sequence.
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Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.
Direct Submission
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Science 302 (5652), 1960-1963 (2003)
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Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M. Inferring nonneutral evolution from human-chimp-mouse orthologous
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                                                                                                                                                                                                                                                                                                                                                                                                               MetGlyAspGluValLeuAspGlnAspGlyThrPheIleGluGluLeuIleLysAsnTyr 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAACATATGTTAATGAGGTCACTGAACACAGTTGCATTGGTTCCCATGTATTCCTGG
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                  ProGluCysThrProAsnIleAspGlyProAsnAlaLysSerValGlnArgGluGlnSer 277
                                                                        GluGluLeuLysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuPro
                                                                                                                               PheProSerAspLy8IlePheGluAlaIleSerSerMetPheProAspLy8GlyThrAla
                                                                                                                                                                                                                                                                                                                                                                                                  <u>ATGGGAGATGAAGTGAAAGAAGAAGATGAGACTTTTATTGAGGAGCTGATCAATAACTAT</u>
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     CCTCAGTGCACACCCAACATCGATGGCCCCAATGCCAAGTCTGTGCAGCGGGGGCAATCT
                                                                                                                                                                                                                             AATGACACCTCAGATGGAAAGCAGGATGACAGCAAAGAACATCTGCCAGTAACAAGAAAG
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                 ArgGlySerLysLysHisLeuLeuLeuAlaProSerAspValAlaGlyTrpGlyIlePhe
                                                        TGTGGGGCCTCAGAGCACTGGGACTGCAAGGTGGTTTCCTGTAAAAACTGCAGCATCCAG
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CGTGGACTTAAGAAGCACCTGCTGCTGGCCCCCTCTGATGTGGCCGGATGGGGCACCTTC
                                                                                                                    ACCAAGCAATGTCCTTGCTATCTGGCAGTGCGAGAATGTGACCCTGACCTGTGTCTCACC
                                                                                                                                                                                CAGTGCAACCCAGACTGTCAGAATCGTTTCCCTGGCTGTCGCTGTAAGACCCAGTGCAAT
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AUTHORS
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AUTHORS
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Pan troglodytes EZH1 gene, V genomic survey sequence.
AY402397

AY402397.1 GI:39758383
GSS.
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Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A.,
Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B.,
Perriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J.,
Adams, M.D. and Cargill, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                Direct Submission
Submitted (16-NOV-2003) Celera
Rockville, MD 20850, USA
This sequence was made by seque
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Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Todd, M.A., Tanenbaum, C.M., Civello, D.R., Lu, F., Murphy, B., Terriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.
Inferring nonneutral evolution from human-chimp-mouse ortholog
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Science 302 (5652), 1960-1963 (2003)
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Mammalia; Butheria;
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                                   GCATTGGTTCCCATCATGTATTCCTGGTCCCCTCTCCAACAGAACTTTATGGTAGAAGAT
 GluThrValLeuHisAsnIleProTyrMetGlyAspGluValLeuAspGlnAspGlyThr
                                                       AlaSerValProIleMetTyrSerTrpSerProLeuGlnGlnAsnPheMetValGluAsp
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                                                                                                                                                                                                                                                                                                                                                                                                             sequence was made by sequencing based on alignment.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                     /organism="Pan troglodytes"
/mol_type="genomic DNA"
/db_xref="taxon:9598"
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/locus_tag="HCM1210"
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AGTGCTCTGGTCGCCGGAGAAGGCACCACATAGTCAGTGCTTCCTGCTCCAATGCC
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 Carninci, P., Shibata, Y., Hayatsu, N., Sugahara, Y., Shibata, K. Itoh, M., Konno, H., Okazaki, Y., Muramatsu, M. and Hayashizaki, Normalization and subtraction of cap-trapper-selected cDNAs
                                                            Carninci, P. and Hayashizaki, Y. High-efficiency full-length cDNA Meth. Enzymol. 303, 19-44 (1999)
                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia;
Sciurognathi; Muroidea; Muridae; Murinae; Mus.
                                                                                                                                                HTC; CAP trapper.
Mus musculus (house mouse)
Mus musculus
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                                                                    Analysis of the mouse transcriptome of 60,770 full-length cDNAs
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                                                                                                                                                                             FANTOM Consortium
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                                        Nature 420 (6915),
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                                                                                                                        RES Carminni, P., Kasukawa, T., Katayama, S., Gough, J., Prith, M.C., Maeda, N., Oyama, R., Ravasi, T., Lenhard, B., Wells, C., Kodzius, R., Bhimokawa, K., Bajio, V. B., Bremner, S. E., Batalov, S., Forrest, A.R., Eavolan, M., Davis, M.J., Wilming, L.G., Aidinis, V., Allen, J. E., Ambesi-Implombato, A., Apweller, R., Aturaliya, R.N., Bailey, T.L., Bansal, M., Barter, L., Beisel, K., Bersano, T., Bono, H., Chalk, A.M., Chiu, K. P., Choudhary, V., Christoffels, A., Clutterbuck, D. R., Chiu, K. P., Choudhary, V., Christoffels, A., Clutterbuck, D. R., Pletcher, C. F., Fukushima, T., Furuno, M., Fuaki, S., Gariboldi, M., Goorgii-Hemming, P., Gingeras, T.R., Gojobori, T., Green, R. S., Gletincich, S., Harbers, M., Hayashi, Y., Hensch, T.K., Hirokawa, N., Hill, D., Huminiecki, L., Iacono, M., Ikeo, K., Iwama, A., Ishikawa, T., Jakt, M., Kanapan, A., Katoh, M., Kawasawa, Y., Kelso, J., Xitamura, H., Kitano, H., Kollias, G., Krishnan, S.P., Kruger, A., Kummerfeld, S.K., Kurochkin, I. V., Liarsau, L. F., Lazarevic, D., Lipovich, L., Liu, J., Liuni, S., McWilliam, S., Madan Babu, M., Madera, M., Marchiomni, L., Matsuda, H., Matsuzawa, S., Miki, H., Mignone, F., Myake, S., Ohara, O., Okazaki, Y., Orlando, V., Pang, K. C., Pavan, W. J., Pavesi, G., Peeole, G., Petrovsky, M., Plazara, S., Red, J., Radd, J. F., Sandelin, A., Seng, L., Sheng, Y., Shibata, Y., Shimada, H., Shimada, K., Silva, D., Sesa, L., Sheng, Y., Shibata, X., Shimada, H., Shimada, K., Silva, D., Seng, L., Sheng, Y., Shibata, X., Tan, S.L., Tang, S., Taylor, M.S., Fegner, J., Teichmann, S. A., Ueda, H.R., Van Ninwegen, B., Verardo, R., Wel, C., Sasaki, D., Tomaru, Y., Fukuda, S., Kanamori-Katayama, M., Suzuki, M., Abaki, J., Azakawa, T., Ida, J., Imamura, K., Itoh, M., Shibata, K., Shiraki, T., Suzuki, S., Tagami, M., Waki, K., Plassy, C., Shibata, K., Shiraki, T., Suzuki, S., Tagami, M., Waki, K., Plassy, C., Shibata, K., Shiraki, T., Suzuki, S., Tagami, M., Waki, K., Pang, K., Naki, H., Kawai, J., and Hayashizaki, Y.
The transcriptional landscape of the mammalian genome Science 309 (5740), 1559-1563 (2005)
                                                                                                                  PANTOM Consortium
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Katayama, S., Tomaru, Y., Kasukawa, T., Waki, K., Nakanishi, M., Nakamura, M., Nishida, H., Yap, C.C., Suzuki, M., Kawai, J., Suzuki, H. Carninci, P., Hayashizah, M., Katish, G., Frith, M., Ravasi, T., Pang, K.C., Hallinan, J., Mattick, J., Hume, D.A., Lipovich, L., Batalov, S., Engstrom, P.G., Mizuno, Y., Faghihi, M.A., Sandelin, A., Chaik, A.M., Mottagui-Tabar, S., Liang, Z., Lenhard, B. and Suzuki, H.,

REFERENCE JOURNAL PUBMED CONSRIM TITLE

16141072

AUTHORS

RIKEN Genome Exploration Research Group
Antisense transcription in the mammalian transcriptome
Science 309 (5740), 1564-1566 (2005)

CONSRIM TITLE JOURNAL PUBMED REFERENCE AUTHORS 16141073

COMMENT

Direct Submission

Submitted (30-MAR-2004) Yoshihide Hayashizaki, The Institute of Submitted (Alexander of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, RIKEN Yokohama, 230-0045, Japan (E-mail:genome-res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/, Tel:81-45-503-9222, Pax:81-45-503-9216) cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Arakawa,T., Carninci,P., Fukuda,S., Hashizume,W., Hayashida,K., Hori,F., Iida,J., Imamura,K., Imotani,K., Itoh,M., Kanagawa,S., Kawai,J., Kojima,M., Konno,H., Murata,M., Nakaura,M., Ninomiya,N., Nishiyori,H., Nomura,K., Ohno,M., Sakazume,N., Sano,H., Sasaki,D., Shibata,K., Shiraki,T., Tagami,M., Tagami,Y., Waki,K., Watahiki,A., Muramatsu,M., and Hayashizaki,Y. (bases 1 to 1238)

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Please visit our web site for further details.

URL:http://genome.gsc.riken.jp/

URL:http://fantom.gsc.riken.jp/.
GlnAspGlyThrPheIleGluGluLeuIleLysAsnTyrAspGlyLysValHisGlyAsp
                                                                                                                                                                                                                                                        MetPheSerSerAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnGluTrp
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                                                   ATGGTGGAAGACGAAACTGTTTTACATAACATTCCTTATATGGGGGATGAAGTTCTGGAT
                                                                       MetValGluAspGluThrValLeuHisAsnIleProTyrMetGlyAspGluValLeuAsp
                                                                                                                      CTGAATGCAGTCGCCTCGGTGCCTATAATGTACTCTTGGTCGCCCTTACAACAGAATTTT
                                                                                                                                          LeuAsnAlaValAlaSerValProIleMetTyrSerTrpSerProLeuGlnGlnAsnPhe
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// protein_ide"BAB32205.1"
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NVAKILERTETILNQEMKQRRIQPVHIMTSVSSLRGTRRGCSVTSDLDFPAQVIPLKTLN
AVASVPIMYSWSPLQQNEMVEDETVLHNIFYMGDEVLDQDGTFIEELIKNYDGKVHGD
REGGFINDEIFVELVNALGQYNDDDDDDDDDFDEREEKQKDLEDNRDDKETCEPRKF
PADKIFRAISSMFPDKGTAEELKEKYKELTEQQLPGALPPECTPNIDGHAKSVQREQ
SIHSFRTIFCRRGFKYDCFLHPFHAIFNTYKRKNTETALDNKPGGPQCYQHLEGAKEQ
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/clone lib="RIXEN full-length
/dev stage="2 days neonate"
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/strain="C57BL/6J"
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 Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y Normalization and subtraction of cap-trapper-selected cDNAs t
                                                                                                                                                        Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eut
Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia;
Sciurognathi; Muroidea; Muridae; Murinae; Mus.
                                                                                       Carninci,P. and Hayashizaki,Y.
High-efficiency full-length cDNA
Meth. Enzymol. 303, 19-44 (1999)
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Nikaido,I., Osato,N., Salto,R., Suzuki,H., Yamanaka,I.,
Kiyosawa,H., Yagi,K., Tomaru,Y., Hasegawa,Y., Nogami,A.,
Schonbach,C., Gojobori,T., Baldarelli,R., Hill,D.P., Bult,C.,
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Chothia,C., Corbani,L.B., Cousins,S., Dalla,B., Dragani,T.A.,
Fletcher,C.F., Forrest,A., Frazer,K.S., Gasterland,T.,
Gariboldi,M., Gissi,C., Godzik,A., Gough,J., Grimmond,S.,
Gustincich,S., Hirokawa,N., Jackson,I.J., Jarvis,B.D., Kanai,A.,
Kawaji,H., Kawasawa,Y., Kedzierski,R.M., King,B.L., Konagaya,A.,
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Maltais,L., Marchiomni,L., McKenzie,L., Miki,H., Nagashima,T.,
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Numata,K., Okido,T., Pavan,W.J., Pertea,G., Pesole,G.,
Petrovsky,N., Pilai,R., Pontius,J.U., Qi,D., Ramachandran,S.,
Sandelin,A., Schneider,C., Semple,C.A., Setou,M., Shimada,K.,
Sultana,R., Takenaka,Y., Taylor,M.S., Teasdale,R.D., Tomita,M.,
Verardo,R., Wagner,L., Wahlestedt,C., Wang,Y., Watanabe,Y.,
Yang,L., Yuan,Z., Zavolan,M., Zhu,Y., Zimmer,A., Carninci,P.,
Hayatsu,N., Hirozane-Kishikawa,T., Konno,H., Nakamura,M.,
Sakzume,N., Sato,K., Shiraki,T., Waki,K., Kawai,J., Aizawa,K.,
Shinagawa,A., Yasunishi,A., Yoshino,M., Waterston,R., Lander,B.S.,
Raynor, M., Sand, A., Yasunishi,A., Yoshino,M., Waterston,R., Lander,B.S.,
Raynor, S., Barney,B. and Hayashizaki,Y.
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                                                               Analysis of the mouse transcriptome of 60,770 full-length cDNAs
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                                                                                                                                                  FANTOM Consortium
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                                       Nature 420 (6915),
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RES Recide M. Davis, M. J. Reinhard, B. Gough, J. Frith M. C. Recide M. Grand, P. Baylic, V. B. Berincer, S. B. Berling, C. Rodzius, R. Shindwara, K. Baylic, V. B. Berenner, S. B. Berling, C. Rodzius, R. Shindwara, K. Baylic, V. B. Berenner, S. B. Berling, C. Milling, V. Allen, J. E. Ambest, I. Baylic, V. B. Berling, C. R. Harling, C. Milling, C. C. Milling, V. Bland, M. Barter, C. Berling, C. B. Milling, C. Britan, J. E. Manbest, Implementation, D. Bonn, T. Belsel, K. W. Bersand, T. Bonn, B. Belley, K. Bersand, T. Brunno, M. Fletch, S. Garlbodd, M. Gutch, R. D. Berling, B. P. de Boon, B. Della Gatta, G. di Bernardo, D. Doen, T. Belsel, K. W. Bersand, T. Brond, H. Berling, C. Gong, B. Della Gatta, G. Growe, M. L. Dalla, E. D. Dalla, E. D. de Boon, B. Della Gatta, G. Growe, M. L. Dalla, E. D. Dalla, B. P. de Boon, B. Della Gatta, G. Growe, M. L. Dalla, E. D. Dalla, B. P. de Boon, B. Della Gatta, G. Growe, M. Dalla, E. D. Belsel, K. W. Bersand, T. Brond, M. Revision, B. P. Kruger, A. Kamer, H. Hill Backland, M. Georgi, L. Belsel, K. R. Krishnan, B. P. Kruger, A. Kamer, H. Hill Backland, M. Revision, B. P. Kruger, A. Kamer, H. Hill Backland, M. Revision, B. P. Kruger, A. Kamer, H. Hill, B. M. Krishnan, B. P. Kruger, A. Kamer, M. Rechoult, H. M. Krugnon, F. M. Mille, G. M. Revision, R. M. Marten, M. Reside, M. Revision, R. M. Marten, M. Reside, M. M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten, M. Marten
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Please visit our web site for further details.
URL:http://genome.gsc.riken.jp/
URL:http://fantom.gsc.riken.jp/.
Location/Qualifiers
                                                                                                                                  SerProLeuGlnGlnAsnPheMetValGluAspGluThrValLeuHisAsnIleProTyr 133
                                                                                                                                                                                                           GlnValIleProLeuLysThrLeuAsnAlaValAlaSerValProIleMetTyrSerTrp
                                                                                                                                                                                                                                                                                          SerSerLeuArgGlyThrArgGluCysSerValThrSerAspLeu---AspPheProThr
                                                                                                                                                                                                                                                                                                                                      AlaAspGluValLysSerMetPheSerSerAspArgGlnLysIleLeuGluArgThrGlu 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TrpArgLysArgValLysSerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArg
 AspGlyLysValHisGlyAspArgGlu---
                                                         MetGlyAspGluValLeuAspGlnAspGlyThrPheIleGluGluLeuIleLysAsnTyr 153
                                                                                                                                                                                        CAGGATATGTTGATGCGGTCTCTGAACACTGTTGCACTGGTTCCCATCATGTATTCCTGG
                                                                                                                                                                                                                                                             AGTGGGCACCCTTTTCTGAAAAAGTGTACCATAGAGAGCATTTTCCCAGGGTTCGACAGC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGGGTGACGAGGTGAAGGAAGAAGATGAGACTTTCATCGAAGAGCTGATCAATAACTAT
                                                                                                               TCCCCTCTCCAGCAGATTTCATGGTGGAAGATGAGACGGTTTTGTGCAATATTCCATAC
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1 (Drosophila) (MGD|MGI:1097695
BLASTN, 99%, match=1770)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Rigeromic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa, 230-0045, Japan (B-mail:genome-res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/, Tel:81-45-503-9222, Fax:81-45-503-9216)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The FANTOM Consortium, Riken Genome Exploration Research Genome Science Group (Genome Network Project Core Group). The Transcriptional Landscape of the Mammalian Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            URL:http://genome.gsc.riken.jp/
URL:http://fantom.gsc.riken.jp/.
Location/Qualifiers
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Please visit our web site for further details.
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Nature 420, 563-573 (2002)
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/protein_id="BAC32334.1"
/db_xref="GI:26337299"
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/clone_lib="RIKEN full-length enriched
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db_xref="taxon:10090"
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CR990276
CR990276.1 GI:
EST.
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http://www.rzpd.de/cgi- bin/products/cl.cgi?CloneID=RZPDp9016B0143
contact RZPD (product- support@rzpd.de) for further information.
Primer name: qe3 4 , Primer sequence: CGGATAACAATTCACACAG.
Location/Qualifiers
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Heubnerweg 6, D-14059 Berlin, Germany
Tel: +49 30 32639 111
Fax: +49 30 32639 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RZPD; RZPDp9016B0143.
RZPDLIB; (Human T-Lymphocytes) RZPD LIB No.9016
http://www.rzpd.de/cgi-bin/products/set.cgi?libNo=9016 Contact:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RZPD Deutsches Ressourcenzentrum fuer Genomforschung GmbH
Heubnerweg 6, D-14059 Berlin, Germany
Email: www.rzpd.de
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1 (bases 1 to 873)

Heil,O., Ebert,L., Hennig,S., and Korn,B.
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Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
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                                                                                                                                                        Double-stranded cDNA was ligated to SalI adaptors, digested with NotI and cloned into the NotI and SalI sites of the pQESOLSN_cloned vector"
                                                                                                                                                                                                               NotI; vector:
                                                                                                                                                                                                                                                                                                                                      /clone="RZPDp9016B0143"
/tissue_type="T-Lymphocytes"
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/lab_host="DH10B"
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                                                                                                                                                                                                                                                                                                    /clone_lib="RZPD no.9016"
/note="Vector: pQE80LSN_cloned; Site_1: Sall; Site_2:
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                                                                                                                                                                                                                                                                                                                                                                                                            organism="Homo sapiens"

/mol_type="mRNA"

/db_xref="taxon:9606"
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                  TyrAsnTyrGlnProCysAspHisProArgGln
                                              TTGTGGGCTGCACACTGCAGAAAGATACAGCTGAAAAAAGGACGGCTCCTCTAACCATGTT
                                                            LeuTrpAlaAlaHisCysArgLysIleGlnLeuLysLysAspGlySerSerAsnHisVal
                                                                                            GCTCCAGCTCCCGCTGAGGATGTGGATACTCCTCCAAGGAAAAAAGAAGAGGAAAACACCGG
                                                                                                             AlaProAlaProAlaGluAspValAspThrProProArgLysLysAysArgLysHisArg
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Search completed: August 13, 2006, 17:20:29 Job time: 6969.6 secs

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Command line parameters:

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-DB=I88ued_Patents NA -QFMT=fastap -SUFFIX=p2n.rni -MINMATCH=0.1 -LOOPCL=0
-LOOPEXT=0 -UNITS=51ts -START=1 -END=-1 -MATRIX=blosum62 -TRANS-humann40.cdi
-LIST=45 -DOCALIGN=200 -THR SCORES=0t -THR MAX=100 -THR MIN=0 -ALIGN=15
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-HOST=abse05p -USER=US10773302 @CGN 1 1 407 @runat 11082006 140230 16722
-NCPU=6 -ICPU=3 -NO MARD -NEG SCORES=0 -WAIT -DSPEDCCK=100 -LONGLOG
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-DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
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ALIGNMENTS

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US-09-589-892B-1

Sequence 1, Application US/09589892B

Patent No. 6689583

GENERAL INFORMATION:

APPLICANT: Jenuwein, Thomas

APPLICANT: Laible, Gotz

APPLICANT: Lisenhaber, Frank

APPLICANT: Sisenhaber, Frank

APPLICANT: Rea, Stephen

TITLE O'Carroll, Donal

APPLICANT: Rea, Stephen

CURRENT APPLICATION NUMBER: US/09/589,892B

CURRENT APPLICATION NUMBER: US 08/945,988

PRIOR APPLICATION NUMBER: US 08/945,988

PRIOR APPLICATION NUMBER: US 08/945,988

PRIOR APPLICATION NUMBER: DO 06-09

PRIOR APPLICATION NUMBER: DE 1956/01818

PRIOR FILING DATE: 1997-11-10

PRIOR APPLICATION NUMBER: DE 1956/01818

PRIOR FILING DATE: 1996-05-02

PRIOR APPLICATION NUMBER: DE 195 16 776.7

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PRIOR APPLICATION NUMBER: DE 195 16 776.7

PRIOR APPLICATION NUMBER: DE 195 16 776.7

PRIOR APPLICATION NUMBER: DE 195 16 776.7

PRIOR FILING DATE: 1995-05-10

NUMBER OF SEQ ID NOS: 21

SEG ID NO 1

LENGTH: 2600

TYPE: DNA

ORGANISM: Homo sapiens

FEATURE:
NAME/KEY: 5'UTR

LOCATION: (9)). (2330)
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Percent Similarity:
Best Local Similarity:
Query Match:
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US-09-266A-8
; Sequence 8, Application
; Patent No. 6559354
; GENERAL INFORMATION:
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APPLICANT: Orozsco Jr., Emil M.

APPLICANT: Rafalski, J. Antoni
TITLE OF INVENTION: TRANSCRIPTION AND GENE EX
FILE REFERENCE: BB1164 US NA
CURRENT APPLICATION NUMBER: US/09/699,266A
CURRENT FILING DATE: 2000-10-27
PRIOR APPLICATION NUMBER: PCT/US99/08385
PRIOR FILING DATE: 1999-04-16
PRIOR FILING DATE: 1999-04-16
PRIOR APPLICATION NUMBER: 60/083,212
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APPLICANT: Morakinyo, Lay
APPLICANT: Odell, Joan T.
APPLICANT: Orozsco Jr., E
APPLICANT: Rafalski, J. F
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NUMBER OF SEQ ID NOS: 13
SOPTWARE: Microsoft Office 97
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TYPE: DNA
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                                                                       TGTCACTGTGCAAAGAGCCAGTGTCGCAGCCGCCAATGTCCATGTTTTGCAGCTGACAGG
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APPLICANT: Goldberg, Robert B.

APPLICANT: The Regents of the University of California
ITITLE OF INVENTION: Nucleic Acids That Control Seed and Fr
ITITLE OF INVENTION: Development in Plants
FILE REFERENCE: 023070-086120US
CURRENT APPLICATION NUMBER: US/09/177,249
CURRENT FILING DATE: 1998-10-22
EARLIER APPLICATION NUMBER: US 09/071,838
EARLIER APPLICATION NUMBER: US 09/071,838
EARLIER FILING DATE: 1998-05-01
NUMBER OF SEQ ID NOS: 324
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 1
LENGTH: 2136
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; LOCATION: (43)..(2112)
; OTHER INFORMATION: fertilization-independent endosperm 1 (FIE1) cDNA
US-09-177-249-1
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APPLICANT: Fischer; Robert L.
APPLICANT: Ohad, Nir
APPLICANT: Kiyosue, Tomohiro
APPLICANT: Yadegari, Ramin
APPLICANT: Wazgossian, Linda
APPLICANT: Harada, John
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Percent Similarity:
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APPLICANT: The Regents of the University of California TITLE OF INVENTION: Nucleic Acids That Control Seed and Frittle OF INVENTION: Development in Plants

FILE REPERENCE: 023070-086120US

CURRENT APPLICATION NUMBER: US/09/812,283

CURRENT FILING DATE: 2001-03-19

PRIOR APPLICATION NUMBER: 09/177,249

PRIOR FILING DATE: 1998-10-22

PRIOR FILING DATE: 1998-05-01

NUMBER: 09/071,838

PRIOR FILING DATE: 1998-05-01

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; NAME/KEY: CDS
; LOCATION: (43)..(2112)
; OTHER INFORMATION: fertilization-independent endosperm 1 (FIE1) cDNA
US-09-812-283-1
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APPLICANT: Fischer, R
APPLICANT: Ohad, Nix
APPLICANT: Kyosue,
APPLICANT: Yadegari,
APPLICANT: Margossia
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SEQ ID NO 1
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Patent No. 6828477
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                                                                                                                          eLysMetLysProAsnIleGluProProGluAsnValGluTrpSerGlyAlaGluAlaSe 438
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RESULT 6
US-09-071-838A-1
; Sequence 1, Application
; Patent No. 7029917
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CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
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                                                                   Goldberg, Robert B.

OF INVENTION: Nucleic Acids That Control Seed
Fruit Development in Plants
                                                                                                                                            Kiyosue, Tomohiro
Yadegari, Ramin
Margossian, Linda
                                                                                                                                                                                                                    Fischer,
                                                                                                                                                                                                   Ohad, Nir
                                                                                                                            Harada, John
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                                                                                                                                                                                                                    Robert
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Best Local Similarity:
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
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APPLICATION NUMBER: US/09/071,838A
PILING DATE: 01-MAY-1998
PILING DATE: 01-MAY-1998
CLASSIFICATION: «Unknown»
ATTORNEY/AGENT INFORMATION:
NAME: Bastian, Kevin L.
REGISTRATION NUMBER: 34,774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE: CDNA
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                                                                                                                                                                                                                                                                                                                       44 rAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnGluTrpLysGlnArgAr
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6 LysLysSerGluLysGlyProValCysTrpArgLysArgValLysSerGluTyrMetArg
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LOCATION: 43..2112
OTHER INFORMATION: /product= "Arabidopsis fertilization-independent endosperm 1 (FIE1)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: San Francisco
STATE: California
COUNTRY: USA
                                                                                                                                                                                                                                                       gIleGlnProValHisIleLeuThrSerValSerSerLeuArgGly------
          GAAGAAGATGTA-CCATTA----
                                                                                                             nVallleProLeuLysThrLeuAsnAlaVal------AlaSerValProIleMe 110
                                                                                                                                                                                                                         GCTTCACACCATCAATCGTTTGACTTAAACCAGCCCGCTGCAGAGGATGATAATGGAGGA
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TYPE: nucleic acid
STRANDEDNESS: single
                                      tTyrSerTrpSerProLeuGlnGlnAsnPheMetValGluAspGluThrValLeuHisAs 130
                                                                              GATTATAATTCTTACGAAGATCAAGGTTATGTTCTTGATGAGGATCAAGATTATGCTCTT
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617.50
40.8%
24.8%
16.2%
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Indels:
          TTTCTTGATGAAGATGTACCATTATTACCAAG
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1028	398 UGIULYBLYBABPGIUTNISETSETSETSETGLUALAABNSETAIGCYBGININTFTOIL 	10
1026		. 10
398	378 rAspSerAspArgGluAlaGlyThrGluThrGlyGlyGluAsnAsnAspLysGluGluGl	Lu
378 1026	358 uProAsnAsnSerSerArgProSerThrProThrIleAsnValLeuGluSerLysAspTh : :::::	10
1010	::: ::: 97GCTGATCATGTGAT	vo.
358	51 ACCATGCAGTGAGCATTGTTACCTCAAGGTGAGGAGTGTGACAGAA	ω w
338	18 SProCysGlyProGlnCysTyrGlnHisteuGluGlyAlaLysGluPheAlaAlaAlaLe	
318 950	301 aThrProAsnThrTyrLysArgLysAsnThrGluThrAlaLeuAspAsnLy	m w
891	TGATAGACGTCATTGCCGTTGCATGATATTCGATTGTCATATGCATGAGAAGTAT	m .
833	TGAGGCTTCTGATTTGACATCCAAGACAATAACTACTGCTTTCCAGGATTTTGC) 4
285	aLysSerValGlnArgGluGlnSerLeuHisSerPheHisThrLeuPhe	N)
269 779	249 uGlnGlnLeuProGlyAlaLeuProProGluCysThrProAsnIleAspGlyProAsnAl :::	a N
758	9 CGCCAAGTACCTCGAAGTGGATGTTTCGGACATATTGGAAAGATACAATGAACTCAAGCT	•
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235 698	225 uAlaIleSerSerMetPheProAspLysGly	о N
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APPLICANT: Cold spring Harbor Labs
TITLE OF INVENTION: NO. 623932781 Seed Speci
TITLE OF INVENTION: use for Same
FILE REFERENCE: mea genes
CURRENT APPLICATION NUMBER: US/09/061,769A
CURRENT FILING DATE: 1998-04-16
PRIOR APPLICATION NUMBER: 09/061,769
PRIOR FILING DATE: 1998-04-16
PRIOR FILING DATE: 1998-04-16
NUMBER OF SEQ ID NOS: 21
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 1
LENGTH: 2315
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US-09-061-769A-1
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                                                                                                                                                GENERAL INFORMATION:
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; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of
; NAME/KEY: CDS
; LOCATION: (14)..(2083)
US-09-061-769A-1
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Best Local Similarity:
Query Match:
DB:
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           LysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuProProGluCysThrPro
                                                                                                                                                                                             AAGAGACAAATCTATTATTTGAATGGTGAG------
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                                                                                                                                                                                                                                                                                                                 ThrPheIle-----GluGluLeuIleLysAsnTyrAspGlyLysValHisGly
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AGATACAATGAACTCAAGCTTAAGAAT---
                                               CTGGTCGTGCGGCGTGCTCTCGCCAAGTACCTCGAAGTGGATGTTTCGGACATATTGGAA
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                                                                                                                      ProSerAspLysIlePheGluAlaIleSerSerMetPheProAspLysGly-----
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Matches:
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                                                                      -ThrAlaGluGluLeuLysGlu
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              CAATGTCCTTGTTTTGCTGAATCGTGAATGCGAATCCTGTCGGAGTTGTCCT
                             GlnCysProCysTyrLeuAlaValArgGluCysAspProAspLeuCys-----------
                                                             AAGGATTGCAACAATCGCTTTTGGAGGATGTAATTGTGCAATTGGCCAATGCACAAATCGA
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APPLICANT: The Regents or APPLICANT: Ceres, Inc.
TITLE OF INVENTION: Compositions and Methods for TITLE OF INVENTION: Development
FILE REFERENCE: 023070-116710US
CURRENT APPLICATION NUMBER: US/10/176,884
CURRENT FILING DATE: 2002-06-21
PRIOR APPLICATION NUMBER: US 60/300,506
PRIOR APPLICATION NUMBER: US 60/300,506
PRIOR FILING DATE: 2001-06-22
NUMBER OF SEQ ID NOS: 91
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Best Local Similarity:
Query Match:
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LENGTH: 2799
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OTHER INFORMATION: Description of Artificial Sequence:MEA-15G-ESA1
OTHER INFORMATION: chimeric HAT nucleic acid construct encoded by
OTHER INFORMATION: transgene plasmid pCRS304-5UAS MEA-15G-ESA1
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Yadegari, Ramin
Gehring, Mary
Okamuro, Jack
Dang, Van-Dinh
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                                                                                                         LysGluPheAlaAlaAlaLeuThrAlaGluArgIleLysThrProProLysArgProGly
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                                                                                                        PheLeuPheAsnLeuAsnAsnAspPheValValAspAlaThrArgLysGlyAsnLysIle
                                                                                                                                                           GTGCATTTACATGGGACTCTCTTAAAAAGAATGAGTATCTCGGAGAATATACTGGAGAA
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                                                                                   TACCTCTTTACCTTGAATGATCAGCTCGAAATCGATGCTCGCCGTAAAGGAAACGAGTTC
                                                                                                                                            CTGATCACTCATGATGAAGCTAATGAGCGTGGGAGAATAGAAGATCGGATTGGTTCTTCC
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                           AAATTTCTCAATCACTCAGCAAGACCTAACTGCTACGCCAAGTTG
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TITLE OF INVENTION: No. 6239327el Seed Specific Polycomb Group Gene and Methods of
TITLE OF INVENTION: use for Same
FILE REFERENCE: mea genes
CURRENT APPLICATION NUMBER: US/09/061,769A
CURRENT FILING DATE: 1998-04-16
PRIOR APPLICATION NUMBER: 09/061,769
PRIOR FILING DATE: 1998-04-16
NUMBER OF SEQ ID NOS: 21
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 GlnTyrAsnAspAspAspAspAspAspAspGlyAspAspProGluGlu---ArgGluGlu 198
                                                           AAGAGACAAATCTATTATTTGAATGGTGAG
                                                                                 AspArgGluCysGlyPheIleAspAspGluIlePheValGluLeuValAsnAlaLeuGly 179
                                                                                                                    ACATGGGTCTTCACCAAAAGTAGCCAGCTGATGGCTGAAAGTGAT---TCTGTGATTGGT
                                                                                                                                            ThrPheIle------GluGluLeuIleLysAsnTyrAspGlyLysValHisGly 159
                                                                                                                                                                           GATGTACCATTATTACCAAGTGTCAAGCTTCCAATTGTTGAGAAGCTACCACGATCCATT
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                                                                                                                                                                                                      AspGluThrValLeuHisAsnIleProTyrMetGlyAspGluValLeuAspGlnAspGly
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APPLICANT: Cold spring Harbor Labs
TITLE OF INVENTION: No. 6239327el Seed Speci
TITLE OF INVENTION: use for Same
FILE REFERENCE: mea genes
CURRENT APPLICATION NUMBER: US/09/061,769A
CURRENT FILING DATE: 1998-04-16
PRIOR FILING DATE: 1998-04-16
NUMBER OF SEQ ID NOS: 21
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 4
LENGTH: 2322
TYPE: DNA
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ent No. 6239327
ERAL INFORMATION:
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OCATION: (1756)..(1763)
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Conservative: Mismatches: Indels: Gaps:
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315 LeuAspAsnLysProCysGlyProGlnCysTyrGlnHisLeuGluGlyAla 331	295 PheLeuHisProPheHisAlaThrProAsnThrTyrLysArgLysAsnThrGluThrAla 314	283 ThrLeuphe	263 ABRIILEABDGIYETOABRAIAIY9SETVALGIRATGGIUGIRASGIEUH18SETFREHIB 282	LysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaJeuProProGluCysThrPro :::	CTGGTCGTGCGGCGTGCTCTCGCCAAGTACCTCGAAGTGGATGTTTCGGACATATTGGAA	219 ProSerAspLysIlePheGluAlaIleSerSerMetPheProAspLysGly 235 :::	199 LysGlnLysAspLeuGluAspHisArgAspAspLysGluSerArgProProArgLysPhe 218 ::: 581 AAATGCGAATTTTCTGAAGAT	TTGAGCAGTGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAATCAAGAAAGA	482 AAGAGACAAATCTATTATTTGAATGGTGAGGGACTAGAA 520 180 GlnTyrAsnAspAspAspAspAspAspAspGlyAspAspProGluGluArgGluGlu 198	AspArgGluCysGlyPheIleAsnAspGluIlePheValGluLeuValAsnAlaLeuGly	144 ThrPheIleGluGluLeuIleLysAsnTyrAspGlyLysValHisGly 159	124 AspGluThrValLeuHisAsnIleProTyrMetGlyAspGluValLeuAspGlnAspGly 143	105AlaSerValProIleMetTyrSerTrpSerProLeuGlnGlnAsnPheMetValGlu 123 ::: ::::::	255 GTCATTTCAGTGCCTCATCTGATTATAATTCTTACGAAGATCAAGGTTATGTTCTTGATG 314			58 GlnGluTrpLysGlnArgArgIleGlnProValHisIleLeuThrSerValSerSerLeu 77			18 ArgValLysSerGluTyrMetArgLeuArgGlnLeuLysArgPheArgAlaAspGlu 37	US-10-773-302-2_COPY_1_699 (1-699) x US-09-061-769A-4 (1-2322)
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Percent Similarity:
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Query Match:
DB:
RESULT 12
US-09-699-266A-10
; Sequence 10, Ap
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APPLICANT: Laible, Gotz

APPLICANT: Laible, Gotz

APPLICANT: C'Carroll, Donal

APPLICANT: Rea, Stephen

TITLE OF INVENTION: Chromatin-Regulator Genes

FILE REFERENCE: 0652.1670001

CURRENT APPLICATION NUMBER: US/09/589,892B

CURRENT FILING DATE: 2000-06-09

PRIOR APPLICATION NUMBER: US 08/945,988

PRIOR APPLICATION NUMBER: PCT/EP96/01818

PRIOR FILING DATE: 1997-11-10

PRIOR FILING DATE: 1995-05-02

PRIOR APPLICATION NUMBER: DE 195 16 776.7

PRIOR PILING DATE: 1995-05-10

NUMBER OF SEQ ID NOS: 21

SOFTWARE: Patentin version 3.2
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ORGANISM: Homo sapiens
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                                                                                                          PheAlaAsnHisSerValAsnProAsnCysTyrAlaLys
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Best Local Similarity:
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; LOCATION: (513)
; OTHER INFORMATION:
US-09-699-266A-10
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PRIOR FILING DATE: 1999-04-16
PRIOR APPLICATION NUMBER: 60/083,212
PRIOR FILING DATE: 1998-04-27
NUMBER OF SEQ ID NOS: 13
SOFTWARE: Microsoft Office 97
SEQ ID NO 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Patent No. 6559354
GENERAL INFORMATION:
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APPLICANT: Orozsco Jr., Emil M.

APPLICANT: Rafalski J. Antoni

TITLE OF INVENTION: TRANSCRIPTION AND GENE EXPRESSION REGULATORS
FILE REFERENCE: BB1164 US NA
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                     GGCAATGCCCATGTTTTGCTGCCATCNGGGAATGTGATCCGGATGTTTTGCAGAAACTGC
                                                                                                                SerSerGluCysGlnAsnArgPheProGlyCysArg--CysLysAlaGlnCysAsnThrL
                                                                                                                                                                       TGCAACAAAATTGCCCCTGTGTGGAAAATGGGACATGCTGTGAGAAATACTGTGGGTGT
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GENERAL INFORMATION:

APPLICANT: Fischer, Robert L.

APPLICANT: Hold, Nir

APPLICANT: Kiyosue, Tomohiro

APPLICANT: Kiyosue, Tomohiro

APPLICANT: Yadegari, Ramin

APPLICANT: Harada, John

APPLICANT: Harada, John

APPLICANT: Holdberg, Robert B.

APPLICANT: The Regents of the University of California

ITILE OF INVENTION: Nucleic Acids That Control Seed and Fruit

ITILE OF INVENTION: Development in Plants

FILE REFERENCE: 023070-086120US

CURRENT APPLICATION NUMBER: US/09/177,249

CURRENT FILING DATE: 1998-10-22

EARLIER APPLICATION NUMBER: US 09/071,838

EARLIER FILING DATE: 1998-05-01

NUMBER OF SEQ ID NOS: 324
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US-09-177-249-6
; Sequence 6, Applica
; Patent No. 6229064
Percent Similarity:
Best Local Similarity:
Query Match:
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                                                                Alignment Scores:
Pred. No.:
                                                                                                               US-09-177-249-6
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SEQ ID NO 6
LENGTH: 7015
                                                                                                                                                                                                        NAME/KEY: CDS
LOCATION: (2). (7015)
OTHER INFORMATION: fertilization-independent
OTHER INFORMATION: SET/polycomb gene genomic
                                                                                                                                                                                                                                                                              NAME/KEY: CDS
LOCATION: (1)..(7014)
OTHER INFORMATION: fertilization-independent endosperm 1 (FIE1)
OTHER INFORMATION: SET/polycomb gene genomic sequence reading f
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ORGANISM: Arabidopsis
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      -AspAlaThrArgLysGlyAsnLysIleArgPheAlaAsnHisSer 690
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APPLICANT: Harada, John
APPLICANT: Goldberg, Robert B.
APPLICANT: Goldberg, Robert B.
APPLICANT: The Regents of the University of California
ITILE OF INVENTION: Nucleic Acids That Control Seed and Fru
TITLE OF INVENTION: Development in Plants
FILE REFERENCE: 023070-086120US
CURRENT APPLICATION NUMBER: US/09/812,283
CURRENT FILING DATE: 2001-03-19
PRIOR APPLICATION NUMBER: 09/177,249
PRIOR FILING DATE: 1998-10-22
PRIOR APPLICATION NUMBER: US 09/071,838
PRIOR FILING DATE: 1998-05-01
NUMBER OF SEQ ID NOS: 324
SOFTMARE: Patentin Ver. 2.0
SEQ ID NO 6
LENGTH: 7015
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Best Local Similarity:
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APPLICANT: Ohad, Nir
APPLICANT: Kiyosue, Tomohiro
APPLICANT: Yadegari, Ramin
APPLICANT: Margossian, Linda
APPLICANT: Harada, John
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                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION: (3)..(7013)
OTHER INFORMATION: fertilization
OTHER INFORMATION: SET/polycomb
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LOCATION: (2)...(7015)
OTHER INFORMATION: fertilization
OTHER INFORMATION: SET/polycomb
NAME/KEY: CDS
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OTHER INFORMATION: fertilization-independent
OTHER INFORMATION: SET/polycomb gene genomic
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                                                            AspSerSerCysProCysValIleAlaGlnAsnPheCysGluLysPheCys----
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                                                                              Sequence 6, Application Patent No. 7029917 GENERAL INFORMATION:
                                             APPLICANT: Fischer, I
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               Kiyosue, Tomohin
Yadegari, Ramin
Margossian, Linda
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                                 Tomohiro
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-NINMATCH=0.11-LOOPCL=0 -LOOPEXT=0 -UNITS=bits -START=1 -END=-1
-MAIRIX=blosum62 -TRANS=human40.cdi -LIST=45 -DOCALIGN=200 -THR_SCORE=pct
-THR_MAX=100 -THR_MIN=0 -ALIGN=15 -MODE=LOCAL -OUTFMT=pto -NORM=ext
-HEAFSIZE=500 -MINLEN=0 -MAXLEN=200000000 -HOST=abss07
-USER=US10773302_eCGN 1 1 2675_erunat 11082006_140239_16873 -NCFU=6 -ICFU=3
-NO_MMAP -NEG_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG -DEV_TIMEOUT=120
-NARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6 -FGAPEXT=7
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1: /BMC_Celerra_SIDS3/pcodata/2/pubpna/US07_PUBCOMB.seq:*

2: /BMC_Celerra_SIDS3/ptodata/2/pubpna/US08_PUBCOMB.seq:*

3: /BMC_Celerra_SIDS3/ptodata/2/pubpna/US09A_PUBCOMB.seq:*

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6: /BMC_Celerra_SIDS3/ptodata/2/pubpna/US09C_PUBCOMB.seq:*
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27.7 555 9 US-10-154-8848-5700 Sequence 27.7 555 9 US-10-154-8848-5700 Sequence 27.7 555 9 US-10-764-324-5700 Sequence 27.7 555 9 US-10-764-324-5700 Sequence 27.7 555 9 US-10-764-324-5700 Sequence 27.7 555 9 US-10-764-324-5700 Sequence 27.7 555 9 US-10-764-324-5700 Sequence 27.7 555 9 US-10-764-324-5700 Sequence 27.7 555 9 US-10-764-324-5700 Sequence 27.7 555 9 US-10-764-324-5700 Sequence 27.7 555 9 US-10-764-324-5700 Sequence 27.7 555 9 US-10-764-324-5700 Sequence 27.7 555 9 US-10-764-324-5700 Sequence 27.7 555 9 US-10-764-324-5700 Sequence 27.7 555 9 US-10-316-34-331 Sequence 27.7 556 9 US-10-316-34-331 Sequence 27.7 555 9 US-10-316-34-331 Sequence 27.7 556 9 US-10-316-34-331 Sequence 27.7 556 9 US-10-316-34-331 Sequence 27.7 556 9 US-10-325-115-96409 Sequence 27.7 556 9 US-10-325-115-96409 Sequence 27.7 55 | 3802 99.8 2576 8 US-10-342-887-1043 Sequenc 3802 99.8 2576 10 US-10-848-755A-129 Sequenc 3802 99.8 2576 10 US-10-960-414-396 Sequenc 3802 99.8 2576 12 US-10-960-414-396 Sequenc 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27.9 19.0 3162 9 US-10-316-154-33 Sequenc 27.9 19.0 3162 9 US-10-316-154-33 Sequenc 27.9 19.0 3163 9 US-10-316-154-33 Sequenc 27.9 19.0 3163 9 US-10-316-154-33 Sequenc 27.9 19.0 3193 9 US-10-425-115-96409 Sequenc 27.9 19.0 3193 9 US-10-425-115-96409 Sequenc 27.9 19.0 3193 9 US-10-425-115-96409 Sequenc 27.9 19.0 3193 9 US-10-425-115-96409 Sequenc 27.9 19.0 3193 9 US-10-425-115-96409 Sequenc 27.9 19.0 3193 9 US-10-425-115-96409 Sequenc 27.9 19.0 3193 9 US-10-425-115-96409 Sequenc 27.9 19.0 3193 9 US-10-425-115-96409 Sequenc 27.0 19.0 3193 9 US-10-425-115-96409 Sequenc 27.0 19.0 3193 9 US-10-425-115-96409 Sequenc 27.0 19.0 3193 9 US-10-425-115-96409 Sequenc 27.0 19.0 3193 9 US-10-425-115-96409 Sequenc 27.0 19.0 3193 9 US-10-425-115-96409 Sequenc 27.0 3193 9 US-10-425-115-96409 Sequenc 27.0 3193 9 US-10-425-115-96409 Sequenc 27.0 3193 9 US-10-425-115-96409 Sequenc | 3802 99.8 2576 10 US-10-848-755A-129 Sequences 3802 99.8 2576 10 US-10-504-173-78 Sequences 3802 99.8 2576 12 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Sequence 287.7 855 7 US-10-164-8848-5700 Sequence 287.7 855 9 US-10-764-324-590 Sequence 287.7 855 9 US-10-764-324-590 Sequence 287.7 855 9 US-10-764-324-590 Sequence 287.7 855 9 US-10-425-114-2944 Sequence 287.7 855 9 US-10-425-114-2944 Sequence 287.8 18.9 3030 16 US-10-30-145-33 Sequence 287.8 18.9 3030 16 US-10-30-145-33 Sequence 287.8 18.3 3061 7 US-10-310-154-891-33 Sequence 287.8 18.3 3061 7 US-10-39-930-1796 Sequence 287.8 18.3 3061 7 US-10-39-930-1796 Sequence 287.8 18.3 3061 7 US-10-39-930-1796 Sequence 287.8 18.3 3061 7 US-10-39-930-1796 Sequence 287.8 18.3 3061 7 US-10-39-930-1796 Sequence 287.8 18.3 3061 7 US-10-39-930-1796 Sequence 287.8 18.3 3061 7 US-10-39-930-1796 Sequence 287.8 18.3 3061 7 US-10-39-930-1796 Sequence 287.8 18.3 3061 7 US-10-425-114-2944 Sequence 287.8 18.3 3061 7 US-10-425-114-294 Sequence 287.8 18.3 3061 7 US-10-39-30-1796 Sequence 287.8 18.3 3061 7 US-10-425-114-294 Sequence 287.8 18.3 3061 7 US-10-425-114-294 Sequence 287.8 18.3 3061 7 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Sequenc 1056 27.7 555 9 US-10-057-4759-5700 Sequenc 1056 27.7 555 9 US-10-154-848-5700 Sequenc 1056 27.7 555 9 US-10-154-848-5700 Sequenc 1056 27.7 555 9 US-10-764-324-5700 Sequenc 1056 27.7 555 9 US-10-764-324-5700 Sequenc 1056 27.7 555 9 US-10-764-324-5700 Sequenc 1056 27.7 555 9 US-10-154-848-5700 Sequenc 1056 27.7 555 9 US-10-154-848-5700 Sequenc 1056 27.7 555 9 US-10-154-848-5700 Sequenc 1056 27.7 555 9 US-10-154-34-5700 Sequenc 1056 27.7 555 9 US-10-764-324-5700 Sequenc 1056 27.7 555 9 US-10-764-324-5700 Sequenc 1056 27.7 555 9 US-10-764-324-5700 Sequenc 1056 27.7 555 9 US-10-764-324-5700 Sequenc 1056 27.7 555 9 US-10-764-324-5700 Sequenc 1056 27.7 555 9 US-10-764-324-5700 Sequenc 1056 27.7 555 9 US-10-764-324-5700 Sequenc 1056 27.7 555 9 US-10-764-324-5700 Sequenc 1056 27.7 555 9 US-10-764-324-5700 Sequenc 1056 27.7 555 9 US-10-310-154-231 Sequenc 1056 27.7 555 9 US-10-310-154-231 Sequenc 1057 18.3 3051 1 US-11-320-145-3 Sequenc 1058 18.3 3051 1 US-11-320-145-3 Sequenc 1059 18.3 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210.56 27.7 555 9 US-10-764-324-5700 Sequence 210.56 27.7 555 9 US-10-764-324-5700 Sequence 210.56 27.7 555 9 US-10-764-324-5700 Sequence 210.56 27.7 555 9 US-10-764-324-5700 Sequence 210.5 18.9 30.6 18 US-10-425-114-1294 Sequence 210.5 18.9 30.3 18 US-09-905-2112 Sequence 210.5 18.4 30.30 18 US-09-905-2112 Sequence 210.5 18.4 30.30 18 US-09-905-2112 Sequence 210.5 18.3 3061 7 US-10-154-331 Sequence 210.5 18.3 3061 7 US-10-154-31 Sequence 210.5 18.3 3051 US-10-425-115-96409 Sequence 210.5 18.3 3051 US-10-425-115-96409 Sequence 210.5 18.3 3051 US-10-425-115-96409 Sequence 210.5 18.3 3051 US-10-425-115-96409 Sequence 210.5 18.3 3051 US-10-425-115-96409 Sequence 210.5 18.3 3051 US-10-425-115-96409 Sequence 210.5 18.3 3051 US-10-425-115-96409 Sequence 210.5 18.3 3051 US-10-425-115-96409 Sequence 210.5 18.3 3051 US-10-425-115-96409 Sequence 210.5 18.5 3051 US-10-425-115-96409 Sequence 210.5 18.5 3051 US-10-425-115-96409 Sequence 210.5 18.5 3051 US-10-425-115-96409 Sequence 210.5 18.5 3051 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Sequence 1157, Application US/09954456

Patent No. US20020115057A1
GENERAL INFORMATION:
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PRIOR PILING DATE: 2000-09-26
PRIOR PILING DATE: 2000-09-20
PRIOR PILING DATE: 2000-09-25
PRIOR APPLICATION NUMBER: US/60/234,923
PRIOR APPLICATION NUMBER: US/60/234,923
PRIOR APPLICATION NUMBER: US/60/235,134
PRIOR APPLICATION NUMBER: US/60/235,637
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PRIOR PILING DATE: 2000-09-26
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NUMBER: US/60/235,711
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; PRIOR APPLICATION NUMBER: US/60/235,840
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; PRIOR FILING DATE: 2000-09-27
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Alignment Scores: Pred. No.: 90 Score: 100.0\$ Best Local Similarity: 100.0\$ Conservative: 100.0\$ Mismatches: 0 Mismatches: 0 DB: US-10-773-302-2_COPY_1_699 (1-699) x US-10-843-641A-4184 (1-2600) Query Match: 100.0\$ MetGlyGlnThrGlyLysLysSerGluLysGlyProValCysTrpArgLysArgValLys 20	Remaining Prior Application data removed - See File Wrapper or PALM. NUMBER OF SEQ ID NOS: 8447 SOFTWARE: Patentin version 3.0 SEQ ID NO 4184 LENGTH: 2600 TYPE: DNA ORGANISM: Homo sapiens US-10-843-641A-4184	ICATION NUMBER: US/09/967,768 ING DATE: 2001-09-28 ICATION NUMBER: US/09/968,007 ING DATE: 2001-10-02 ICATION NUMBER: US/09/969,347 ING DATE: 2001-10-02 ICATION NUMBER: US/09/969,708 ING DATE: 2001-10-02 ICATION NUMBER: US/09/969,708	PRIOR APPLICATION NUMBER: US/09/954,456 PRIOR FILING DATE: 2001-09-25 PRIOR FILING DATE: 2001-09-25 PRIOR FILING DATE: 2001-09-25 PRIOR APPLICATION NUMBER: US/09/962,832 PRIOR FILING DATE: 2001-09-25 PRIOR APPLICATION NUMBER: US/09/964,824 PRIOR FILING DATE: 2001-09-27	TITLE OF INVENTION: Cancer Gene Determination and Therapeutic Screening Using TITLE OF INVENTION: Signature Gene Sets FILE REFERENCE: 689290-189 CURRENT APPLICATION NUMBER: US/10/843,641A CURRENT FILING DATE: 2004-05-12 PRIOR APPLICATION NUMBER: US/09/873,367 PRIOR APPLICATION NUMBER: US/09/873,367 PRIOR PILING DATE: 2001-06-05 PRIOR APPLICATION NUMBER: US/09/954,531 PRIOR FILING DATE: 2001-09-18	RESULT 2 US-10-843-641A-4184 ; Sequence 4184, Application US/10843641A ; Publication No. US20050064454A1 ; Publication No. US20050064454A1 ; GENERAL INFORMATION:	Oy 661 TyrMetCysSerPheLeuPheAsnEuAsnAsnAspheValValAspAlaThrArgLys 680	1890 621 1950 641 2010
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RESULT 3
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; Sequence 1, Application US/10773302
; Publication No. US20050089880A1
; GENERAL INFORMATION:
APPLICANT: Jenuwein, Thomas
APPLICANT: Laible, Gotz
APPLICANT: O'Carroll, Donal
APPLICANT: Eisenhaber, Frank
APPLICANT: Rea, Stephen
TITLE OF INVENTION: Chromatin-Regulator Genes
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LENGTH: 2600
TYPE: DNA
CORGANISM: Homo sapiens
FEATURE:
NAME/KEY: 5'UTR
LOCATION: (1)..(89)
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CURRENT APPLICATION NUMBER: US/10/773,302
CURRENT FILING DATE: 2004-02-09
PRIOR APPLICATION NUMBER: US/09/589,892
PRIOR PILING DATE: 2000-06-09
PRIOR APPLICATION NUMBER: US 08/945,988
PRIOR FILING DATE: 1997-11-10
PRIOR APPLICATION NUMBER: PCT/EP96/01818
PRIOR PRILING DATE: 1995-05-02
PRIOR APPLICATION NUMBER: DE 195 16 776.7
PRIOR APPLICATION NUMBER: DE 195 16 776.7
PRIOR APPLICATION NUMBER: DE 195 16 776.7
PRIOR PRILING DATE: 1995-05-10
NUMBER OF SEQ ID NOS: 21
SOFTWARE: Patentin version 3.2
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NAME/KEY: CDS
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      AGAGAATGTGGGTTTATAAATGATGAAATTTTTTGTGGAGTTGGTGAATGCCCCTTGGTCAA
                     ArgGluCysGlyPheIleAsnAspGluIlePheValGluLeuValAsnAlaLeuGlyGln 180
                                                                                  GlnAspGlyThrPheIleGluGluLeuIleLysAsnTyrAspGlyLysValHisGlyAsp
                                                                                                                                 ATGGTGGAAGATGAAACTGTTTTACATAACATTCCTTATATGGGAGATGAAGTTTTAGAT
                                                                                                                                                  MetValGluAspGluThrValLeuHisAsnIleProTyrMetGlyAspGluValLeuAsp
                                                                                                                                                                                              CTGAATGCAGTTGCTTCAGTACCCATAATGTATTCTTGGTCTCCCCCTACAGCAGAATTTT
                                                                                                                                                                                                                                                                            ArgGluCysSerValThrSerAspLeuAspPheProThrGlnValIleProLeuLysThr
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                                                                                                                                AAAACATGTAGACAGGTGTATGAGTTTAGAGTCAAAGAATCTAGCATCATAGCTCCAGCT
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 CAACCCTGTGATCATCCACGGCAGCCTTGTGACAGTTCGTGCCCTTGTGTGATAGCACAA
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Sequence 5458, Application US/10723860

Publication No. US20040253606A1

GENERAL INFORMATION:

APPLICANT: Raiz, Natasha

APPLICANT: Ginsburg, Wendy M.

APPLICANT: Ginsburg, Wendy M.

APPLICANT: Clotnik, Albert

TITLE OF INVENTION: Methods of Diagnosis of Soft Tissue Sarcoma Modulators

FILE OF INVENTION: Methods for Screening for Soft Tissue Sarcoma Modulators

FILE REFERENCE: 0582.0193.NPUS01

CURRENT FILING DATE: 2003-11-26

PRIOR APPLICATION NUMBER: US/10/723,860

CURRENT FILING DATE: 2003-11-26

PRIOR FILING DATE: 2002-11-26

NUMBER OF SEQ ID NOS: 8393

SOFTWARE: Patentin version 3.2

SEQ ID NO 5458

LENGTH: 2711

TYPE: DNA

ORGANISM: Homo sapiens
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; PRIOR APPLICATI	401 LysAspGluThrSerSerSerGluAlaAsnSerArgCysGlnThrProIleLysMet 420	Ş
; FILE REFERENCE: ; CURRENT APPLICA : CIRCUM FILING		문 5
; APPLICANT: ISH ; TITLE OF INVENT	1247 AACAGTAGCAGGCCCAGCACCCCCCACCATTAATGTGCTGGAATCAAAAGATACAGACAG	5 8
; APPLICANT: HONE ; APPLICANT: MAN	AsnSerSerArgProSerThrProThrIleAsnValLeuGluSerLysAspThrAspSer	. S
US-10-153-668-231, Ag Sequence 231, Ag ; Publication No. ; GENERAL INFORMAN	341 GluArgIleLysThrProProLysArgProGlyGlyArgArgArgGlyArgLeuProAsn 360 	B 8
2207	1127 GGACCACAGTGTTACCAGCATTTGGAGGGAGCAAAGGAGTTTGCTGCTGCTCACCGCT 1186	문 5
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Db 2147 TAC	301 AlaThrProAsnThrTyrLysArgLysAsnThrGluThrAlaLeuAspAsnLysProCys	8
2087	281 PheHisThrLeuPheCysArgArgCysPheLysTyrAspCysPheLeuHisProPheHis 300 	용 왕
Db 2027 GTGG		당 !
Qy 621 Valr	ThrProAsnIleAspGlvProAsnAlaLvsSerValGlnArqGluGlnSerLeuHisSer 28	5 5
1967	241 LysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuProProGluCys 260	ş 8
601	827 GATAAAATTTTTGAAGCCATTTCCTCAATGTTTCCAGATAAGGGCACAGCAGAAGAACTA 886	В
QY 581 ASDE	221 AspLysIlePheGluAlaIleSerSerMetPheProAspLysGlyThrAlaGluGluLeu 240	Ş
1847	201 Lysaspleugluasphisargaspasplysgluserargproproarglyspheproser 220	유 성
561	707 TATAATGATGATGATGATGATGATGAGAGAGACGATCCTGAAGAAAAGGAAAAAGCAG 766	뮹
Qy 541 AsnE	TyrasnaspaspaspaspaspaspaspGlyaspaspproGluGluArgGluGluLysGln	Ş.
L.	161 ArgGluCysGlyPheIleAsnAspGluIlePheValGluLeuValAsnAlaLeuGlyGln 180 	음 성
Db 1667 ĠĊĀĆ Qy 521 GlnF		문 5
Qy 501 AlaE	527 AIGGIGGAAGAIGAACIGITTTACATAACATTCCTTATATGGGAGAIGAAGITTTAGA1 586	5 8
L	MetValGluAspGluThrValLeuHisAsnIleProTyrMetGlyAspGluValLeuAsp 14	8
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Db 1487 AGAG	ArgGluCysSerValThrSerAspLeuAspPheProThrGlnValIleProLeuLysThr	Ş
1427	61 LysglnArgArgIleGlnProValHisIleLeuThrSerValSerSerLeuArgGlyThr 80 	용 성
Db 1367 AAAG Qy 421 Lysf		
	41 MetPheSerSerAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnGluTrp 60	Ś

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gValLeuIleGlyThrTyrAspAsnPheCysAlaIleAlaArgLeuIleGlyThr
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            AsnLysIleArgPheAlaAsnHisSerValAsnProAsnCysTyrAlaLysVal
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                                                                                                           CysGlyGluIleIleSerGlnAspGluAlaAspArgArgGlyLysValTyrAspLys
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HONDA, Goichi
MATSUDA, Akio
MURAMATSU, Shuji
ISHIZAWA, Kenya
ISHIZAWA, Kenya
CESTATE Activating Gene
NCE: 1254-02076
LICATION NUMBER: US/10/153,668
LICATION BATE: 2002-05-24 Application US/10153668 . US20030092616A1 NUMBER: US 60/293,172

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PRIOR APPLICATION NUMBER: US 60/328,403
PRIOR PILING DATE: 2001-10-12
PRIOR APPLICATION NUMBER: UP 2001-157043
PRIOR PILING DATE: 2001-05-25
PRIOR APPLICATION NUMBER: UP 2001-260681
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PUBLICATION INFORMATION: PUBLICATION INFORMATION: DATABASE ENTRY DATE: 2001-06-18 US-10-172-118-1043	SULT 6 SEQUENCE 104 PUBLICATION PUBLICATION REMERAL INFO APPLICANT: APPLICANT	Db 1738 CGCTGCAAAGCACAGTGCAACACCAAGCAGTGCCCGTGCTACCTGGCTGTCCGAGAGTGT 1797 Qy 581 ASpProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAspSerLysAsnValSer 600
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RESULT 7
US-10-295-027-709
APPLICANT: Afar, Daniel
APPLICANT: Aziz, Natasha
APPLICANT: Ginsberg, Wendy M.
APPLICANT: Ginsh, Kurt C.
APPLICANT: Gish, Kurt C.
APPLICANT: Glynne, Richard
APPLICANT: Hevezi, Peter A.
APPLICANT: Mack, David H.
APPLICANT: Murray, Richard
APPLICANT: Watson, Susan R.
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Best Local Similarity:
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NUMBER OF SEQ ID NOS: 1386
; SOFTWARE: PatentIN Ver. 2.1
; SEQ ID NO 709
LENGTH: 2576
; TYPE: DNA
; ORGANISM: Homo sapiens
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CURRENT FILING DATE: 2002-11-13
PRIOR APPLICATION NUMBER: US 09/663,733
PRIOR FILING DATE: 2000-09-15
PRIOR APPLICATION NUMBER: US 60/350,666
PRIOR FILING DATE: 2001-11-13
PRIOR PILING DATE: 2001-11-15
PRIOR PILING DATE: 2001-11-15
PRIOR APPLICATION NUMBER: US 60/332,464
PRIOR FILING DATE: 2001-11-15
PRIOR APPLICATION NUMBER: US 60/332,464
PRIOR PILING DATE: 2001-11-29
PRIOR APPLICATION NUMBER: US 60/340,376
PRIOR PILING DATE: 2001-12-14
PRIOR APPLICATION NUMBER: US 60/347,211
PRIOR APPLICATION NUMBER: US 60/347,211
PRIOR APPLICATION NUMBER: US 60/347,349
PRIOR PILING DATE: 2002-01-08
PRIOR PILING DATE: 2002-01-09
PRIOR APPLICATION NUMBER: US 60/347,349
PRIOR APPLICATION NUMBER: US 60/347,349
PRIOR APPLICATION NUMBER: US 60/355,250
PRIOR APPLICATION NUMBER: US 60/356,714
PRIOR APPLICATION NUMBER: US 60/356,714
PRIOR APPLICATION NUMBER: US 60/356,714
PRIOR FILING DATE: 2002-02-03
PRIOR PRIOR PAINT APPLICATION NUMBER: US 60/356,714
PRIOR FILING DATE: 2002-02-03
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TITLE OF INVENTION: Methods of Diagnosis of Cancer, Compositions and
TITLE OF INVENTION: Methods of Screening for Modulators of Cancer
FILE REFERENCE: 018501-012500US
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                                                                           GENERAL INFORMATION:

APPLICANT: Dai, Hongyue

APPLICANT: He, Yudong

APPLICANT: Linsley, Peter S.

APPLICANT: Mao, Mao

APPLICANT: Moo, Mao

APPLICANT: Roberts, Christopher J.

APPLICANT: Wan 't Veer, Laura Johanna

APPLICANT: Van de Vijver, Marc J.

APPLICANT: Bernards, Rene

ITILS OF INVENTION: Diagnosis and Prognosis of

FILE REFERENCE: 9301-188-999

CURRENT APPLICATION NUMBER: US/10/342,887

CURRENT FILING DATE: 2003-01-15

PRIOR APPLICATION NUMBER: 60/298,918

PRIOR APPLICATION NUMBER: 10/172,118

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                                              Alignment Scores: Pred. No.:
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US-10-342-887-1043
        Percent Similarity:
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Publication No. US20040058340A1
GENERAL INFORMATION:
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RESULT 9
US-10-848-755A-129
; Sequence 129, Application US/10848755A
; Publication No. US2005054826A1
; Publication No. US20050054826A1
; Publication No. US20050054826A1
; Publication No. US20050054826A1
; PAPLICANT: Mao, Mao
; TITLE OF INVENTION: HUMAN DIAPHANOUS-3 GENE AND MET TITLE OF INVENTION OUTBER: US/10/848,755A
; CURRENT FILING DATE: 2004-05-18
; PRIOR APPLICATION NUMBER: 60/471,842
; PRIOR APPLICATION NUMBER: 60/471,842
; PRIOR FILING DATE: 2003-05-11
; NUMBER OF SEQ ID NOS: 275
; SOFTWARE: PatentIn version 3.2 CAM: 301891-999188
; SEQ ID NO 129
; LENGTH: 2576
; Type: DNA
; ORGANISM: Homo sapiens
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                                                  AsnPheCysGluLysPheCysGlnCysSerSerGluCysGlnAsnArgPheProGlyCys
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Oy 41 MetPheSerSerAsnArgGlnLysIleLeuGluArgThrGluIleLeuAsnGlnGluTrp 60	QY 1 RECTYCLIFICATION SECTION SECTION OF THE CONTROL OF THE CONTRO	ery Match: 99.8% Indels: 0 ery Match: 99.8% Gaps: 0 -10-773-302-2_COPY_1_699 (1-699) x US-10-504-173-78 (1-2576)	0 3802.00 99.9%	; SEQ 1D NO 78 ; LENGTH: 2576 ; TYPE: DNA ; ORGANISM: Homo sapiens US-10-504-173-78	URRENT FILING DATE: 2004-08-11 RIOR APPLICATION NUMBER: 020359.5 RIOR FILING DATE: 2002-02-02 UMBER OF SEQ ID NOS: 135 DFTWARE: Patentin version 3.1	; GENERAL INFORMATION: ; APPLICANT: Axordia Limited ; TITLE OF INVENTION: Pluripotential Stem Cells ; FILE REFERENCE: P101863WO ; CURRENT APPLICATION NUMBER: US/10/504.173	RESULT 10 US-10-504-173-78 ; Sequence 78, Application US/10504173 ; Publication No. US20050202428A1	QY 681 GlyAsnLysIleArgPheAlaAsnHisSerValAsnProAsnCysTyrAlaLysVal 699	Oy 661 TyrMetCysSerPheLeuPheAsnLeuAsnAsnAspPheValValAspAlaThrArgLys 680	は二ぱ	621 ValAlaGlyTrpGlyIlePheIleLysAspProValGlnLysAsnGluPheIleSerGlu 	Oy 601 CyslysAsnCysSerIleGlnArgGlySerLysHisLeuLeuLeuAlaProSerAsp 620	581 AspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAspSerLysAsnValSer
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RESULT 11 US-10-960-414-396 US-10-960-414-396 Sequence 396, Application US/10960414 Publication No. US20060074565A1 GENERAL INFORMATION: APPLICANT: WILLER, LANCE D. APPLICANT: VEGA, VINSENSIUS B. APPLICANT: VEGA, VINSENSIUS B. TITLE OF INVENTION: PROGNOSIS, SYSTEMS, AND COMPOSITIONS FOR CLASSIFICATION, TITLE OF INVENTION: PROGNOSIS, AND DIAGNOSIS OF CANCERS FILE REFERENCE: 3871-78067 CURRENT APPLICATION NUMBER: US/10/960,414 CURRENT FILING DATE: 2004-10-06 NUMBER OF SEQ ID NOS: 500 SOFTWARE: PATENTIN VERSION 3.3 SEQ ID NO 396 LENGTH: 2576 TYPE: DNA ORGANISM: Homo Bapiens US-10-960-414-396 Alignment Scores: ORGANISM: Homo Bapiens US-10-960-414-396 Alignment Scores: OMATCHES: 2576 Score: 3802.00 Matches: 698 Percent Similarity: 99.9% Conservative: 0	Oy 461 LysThrcysArgGlnvalTyrGlubeArgValLysGluGsrSerIt eilaalaFroAla 480 1438 MANACHTORAGAGGTTATATAGTTATAGGTTAAGATTAAGATTAAGATTATAGCTTATAGCTTCAATATHGHISHINIH Db 1438 CCCGCTAGAAGAGTTATATAGTTTAAGATTAAAGAACGAAAAAGAGGAAACAGTTTATATAT Oy 481 ProAlaGluAspThrProProArgLysLysArgLysHysHglargLysHglargLysHglarglesTTPAla 500 1498 CCCGCTAGAAGATTATACAGCTGAAAAGAAAAAAGAAGAAAAAAGACGAAACAGTTTACACTTTT Oy 501 AlaHisCysArgLysIlaGlarglarglarglarglysHglarglysHglarglesTTPAla 500 1558 GCACACTCCAGAAAGATACAGCTGAAAAGAAGAAAAAGAACGAAAAAAGACGAAACAGTTTACAACTTT 1617 Db 1558 GCACACTCCAGAAAGATACACACGCAGACTGAAAAGAGAAAAAACGATTACACTATT Oy 511 ABAPPACAABAGTATCCACGGCAGCTGATAAAGAGAAAAAACGATTATACAACTTT 1679 541 ABAPPACAABAGTATCCACGGCAGCTGCTGTAACAAACGGTTTACAACTTAT 1670 551 ATGCYSLYSAAAGTTTTCTCAATGTTCAGAATGTCAAAAACGGTTTCCGGAATGC Oy 561 ATGCYSLYSAAAGTTTTCTCAATGTTCAGAATGTCAAAACGGTTTCCGGAATGC OY 561 AAGACTACACTCCAATGTACACACCAACACTGCACTTCCTCACAAACTGTTTCCACAATGTT OY 561 AAGACTACACTCCAATGTACACACCACACATGCACTGCCCTTCTCCACAAACTGTT OY 561 AAPPACAACACACTCCAATGTACACACCACATGTCCACATTCGACACATTCTCACAAATTCTCTCACA OY 561 AAPPACAACACACTCCATTCTCTTCTCACACTTCCACAAAAACTCTACTCTCCACAAATTCTCTCACA OY 561 AAPPACAACACACTCCATTCTCTTTTCACACCACCCCCTTCTCCACAAAACTCTACTCTCACAAA OY 661 OYSCAAACACACTTCTCTTTTCACACCACCCCCTTCTCCAAAAACTCTACTCTCACAAA OY 661 OYSCAAACACACTTTCTCTTTTCACACCACCCCTTACCAAAAACTCTACTCTCACAAA OY 661 OYSCAAACACACTTTCTCTCTACACACCACAAAAAACCTCTACTCTACAAAACTTACACCAC
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GlyAsnLysIleArgPheAlaAsnHisSerValAsnProAsnCysTyrAlaLysVal
                                                                       TyrMetCysSerPheLeuPheAsnLeuAsnAsnAspPheValValAspAlaThrArgLys
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APPLICANT: Chinnaiyan, Arul M.

APPLICANT: Rubin, Mark A.

APPLICANT: Sreekumar, Arun

TITLE OF INVENTION: Expression Profile of Pr.

FILIE REFERENCE: UM-07221

CURRENT APPLICATION NUMBER: US/10/210,120

CURRENT FILING DATE: 2002-08-01

PRIOR APPLICATION NUMBER: US 60/309,581

PRIOR FILING DATE: 2001-08-02

PRIOR FILING DATE: 2001-08-02

PRIOR PRIOR DATE: 2001-11-15

NUMBER OF SEQ ID NOS: 123

SOPTWARE: PATENTIN VERSION 3.2

SEQ ID NO 95

LENGTH: 2512

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; Publication No. US20030175736A1
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Best Local Similarity:
Query Match:
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APPLICANT: Rubin, Mark A.
APPLICANT: Chinnalyan, Arul M.
APPLICANT: Laxman, Bharathi
APPLICANT: Sreekumar, Arun
TITLE OF INVENTION: AMACR Cancer Markers
FILE REFERENCE: UM-09098
CURRENT APPLICATION NUMBER: US/10/909,035
CURRENT FILLING DATE: 2004-07-30
NUMBER OF SEQ ID NOS: 123
SOFTWARE: Patentin version 3:2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 95, Application US/10909035 Publication No. US20050136493A1 GENERAL INFORMATION:
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LysGlnArgArgIleGlnProValHisIleLeuThrSerValSerSerLeuArgGlyThr
                                                                                                                                       SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArgAlaAspGluValLysSer
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                                                                     MetPheSerSerAsnArgGlnLysIleLeuGl
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420 1268	401 LysaspGluThrSerSerSerSerGluAlaAsnSerArgCysGlnThrProIleLysMet
400	381 AspargGlualaGlyThrGluThrGlyGlyGluAsnAsnAsplysGluGluGluGluGluLys
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380	361 AsnSerSerArgProSerThrProThrIleAsnValLeuGluSerLysAspThrAspSer
1148	
360	341 GluargIleLysThrProProLysArgProGlyGlyArgArgArgGlyArgLeuProAsn
340	321 GlyProGlnCysTyrGlnHisLeuGluGlyAlaLysGluPheAlaAlaAlaAlaLeuThrAla
1028	
320	301 AlaThrProAsnThrTyrLysArgLysAsnThrGluThrAlaLeuAspAsnLysProCys
968	
300	281 PheHisThrLeuPheCysArgArgCysPheLysTyrAspCysPheLeuHisProPheHis
908	
280	261 ThrProAsmIleAspGlyProAsmAlaLysSerValGlnArgGluGlnSerLeuHisSer
848	
260 788	241 LysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuProProGluCys
240	221 AspLysIlePheGluAlaIleSerSerMetPheProAspLysGlyThrAlaGluGluLeu
728	
220	201 LysaspLeuGluaspHisarqaspaspLysGluSerargProProArgLysPheProSer
200	181 TyrhenasphepasphepasphepaspGlyaspheproGluGluargGluGluLysGln
180	161 ArgGluCysGlyPheIleAsnAspGluIlePheValGluLeuValAsnAlaLeuGlyGln
160	141 GlnäspGlyThrPheIleGluGluLeuIleLysäsnTyräspGlyLysValHisGlyäsp
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140	121 MetValGluhepGluThrValLeuHiBABnIleProTyrMetGlyABpGiuValLeuABp
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120	101 LeuAsnAlaValAlaSerValProIleMetTyrSerTrpSerProLeuGlnGlnAsnPhe
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100	81 ArgGluCysSerValThrSerAspLeuAspPheProThrGlnValIleProLeuLysThr
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RESULT 14

US-10-104-047-1192
; Sequence 1192, Application US/10104047
; Sequence 1192, Application US/10104047
; Publication No. US20030236392A1
; GENERAL INFORMATION:
APPLICANT: HELIX RESEARCH INSTITUTE
FITLE OF INVENTION: No. US20030236392A1e1 full length cDNA
FILE REFERENCE: H1-A0105
; CURRENT APPLICATION NUMBER: US/10/104,047
; CURRENT APPLICATION NUMBER: US/10/104,047
; CURRENT FILING DATE: 2002-03-25
; PRIOR APPLICATION NUMBER:
; NUMBER OF SEQ ID NOS: 4096
; SOPTWARE: PATENTIN Ver. 2.1
; SEQ ID NO 1192
; SEQ ID NO 1192
; EREGTH: 2476
; TYPE: DNA
; ORGANISM: Homo sapiens
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APPLICANT: OTSUKA, MOTOYUKI
APPLICANT: NAGAHARI, KENJI
APPLICANT: NAGAHARI, KENJI
APPLICANT: MASUHO, YASUHIKO
ITILE OF INVENTION: NOVEL full length cDNA
FILB REFERENCE: 084335-0191
CURRENT APPLICATION NUMBER: US/11/072,512
CURRENT FILING DATE: 2005-03-07
PRIOR APPLICATION NUMBER: US 60/350,978
PRIOR APPLICATION NUMBER: UF 2001-379298
PRIOR FILING DATE: 2001-11-05
NUMBER OF SEQ ID NOS: 4096
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 1192
LENGTH: 2476
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Publication No. US20060029945A1
GENERAL INFORMATION:
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IRIE, RYOTARO
TAMECHIKA, ICHIRO
SEKI, NAOHIKO
YOSHIKAWA, TSUTOMU
OTSUKA, MOTOYUKI
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	481 1416	ProAlaGluAspValAspThrProProArgLysLysArgLysHisArgLeuTrpAla 500
	501 1476	AlaHisCysArgLysIleGlnLeuLysLysAspGlySerSerAsnHisValTyrAsnTyr 520
	521 1536	GlnProCysAspHisProArgGlnProCysAspSerSerCysProCysValI1eAlaGln 540
	541 1596	AsnPheCysGluLysPheCysGlnCysSerSerGluCysGlnAsnArgPheProGlyCys 560
	561 1656	ArgCysLysAlaGlnCysAsnThrLysGlnCysProCysTyrLeuAlaValArgGluCys 580
	581 1716	AspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAspSerLysAsnValSer 600
	601 1776	CYSLYBASHCYSSerIleGlnArgGlySerLysLysHisLeuLeuAlaProSerAsp 620
	621 1836	ValalaGlyTrpGlyIlePheIleLy8AspProValGlnLy8AsnGluPheIleSerGlu 640
	641 1896	TyrcysGlyGluIleIleSerGlnAspGluAlaAspArgArgGlyLysValTyrAspLys 660
	661 1956	TyrMetCysSerPheLeuPheAsnLeuAsnAsnAspPheValValAspAlaThrArgLys 680
	681 2016	GlyAsnLysileArgPheAlaAsnHisSerValAsnProAsnCysTyrAlaLysVal 699
arch	comple:	arch completed: August 13, 2006, 18:01:50

Search completed: August 13, 2006, 18:01:50 Job time: 2084.88 secs

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Result
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-MODEL-frame+ p2n.model -DEV=xlp
-Q=/abss/ABSSWEB ppont/US10773302/runat 11082006 140243 16928/app query.fasta 1
-DB=Published Applications NA New -QFMT=fastap -SUFFIX=p2n.rnpbn -MINMATCH=0.I
-DB=Published Applications NA New -QFMT=fastap -SUFFIX=p2n.rnpbn -MINMATCH=0.I
-LOOPCL=0 -LOOPEXT=0 -UNITS=blts -START=1 -END=-1 -MATRIX=blosum62
-TRANS=puman40.cdi -LIST=45 -DOCALICN=200 -THR SCORE=pct -THR MAX=100
-THR_MIN=0 -ALIGN=15 -MODE=LOCALI -OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0
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-USER=US10773302 @CGN 1 1 430 @rumat 11082006 140243_16928 ;NCPU=6 -ICPU=3
-NO MWAP -NEG SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG -DEV TIMEOUT=120
-WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6 -FGAPEXT=7
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length: 2000000000
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Match
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1: ZMC Celerra_SIDS3/ptodata/2/pubpna/US06_NEW_PUB.seq:*

2: ZMC_Celerra_SIDS3/ptodata/2/pubpna/US06_NEW_PUB.seq:*

3: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US08_NEW_PUB.seq:*

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9: /EMC_Celerra_SIDS3/ptodata/2/pubpna/US11_NEW_PUB.seq:*
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Ygapop 10.0,
Fgapop 6.0,
Delop 6.0,
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US-11-266-748A-29501

US-11-266-748A-259286

US-11-266-748A-319803
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Sequence 3, Appli
Sequence 29501, A
Sequence 259286,
Sequence 278870,
Sequence 319803,
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Sequence 49180, A Sequence 60163, A Sequence 351035,	equence 6182, A equence 355986, equence 439365,	equence 23825; equence 4115, equence 17766, equence 190098; equence 74138; equence 10820; equence 126949;	equence 1 equence 3 equence 3 equence 1	e 8875, e 63959, e 66791,		28300 28300 30964 29295	2413 9858 1513 1757	Sequence 62177, A Sequence 26094, A Sequence 186457,

ALIGNMENTS

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Sequence 2, Application US/10539630
Publication No. US20060104981A1
GENERAL INFORMATION:
APPLICANT: Takeda Chemical Industries, Ltd.
ITITLE OF INVESTION: Preventing and treating ag
FILE REFERENCE: 3130WOOP
CURRENT FILING DATE: 2005-06-17
PRIOR APPLICATION NUMBER: US/10/539,630
PRIOR FILING DATE: 2002-12-24
                                              Percent Similarity:
Best Local Similarity:
Query Match:
US-10-773-302-2_COPY_1_699 (1-699)
                                                                                                                                                                ; NUMBER OF SEQ ID NOS: 14
SEQ ID NO 2
; LENGTH: 2253
; TYPE: DNA
; ORGANISM: Human
                                                                                             Score:
                                                                                                                       Alignment Scores:
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1 MetGlyGlnThrGlyLysSerGluLysGlyProValCysTrpArgLysArgValLys

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56 GlyArgLeuProAsnAsnSerSerArgProSerThrProThrIleAsnValLeuGluSer 375	16 AspasnLysProCysGlyProGlnCysTyrGlnHisLeuGluGlyAlaLysGluPheAla 33	281 PheHisThrLeuPheCysArgArgCysPheLysTyrAspCysPheLeuHis 297	241 LysGluLysTyrLysGluLeuThrGluGlnGlnLeuProGlyAlaLeuProProGluCys 260	201 LyaspleuGluhapHisArgAsphsplysGluSerArgProProArgLysPheProSer 220	GlyGln ggTcAA GGTCAA AAGCAG	MetValGluAspGluThrValLeuHisAsnIleProTYrMetGlyAspGluValLeuAsp	ArgGluCysSerValThrSerAspLeuAspPheProThrGlnValIleProLeuLysThr	1 ATGGCCAGACTGGGAAGAATCTGAGAAGGGACCAGTTTGTTGGCGGAAGCGTGTAAAA 60 21 SerGluTyrmetArgLeuArgGlnLeuLysArgPheArgArgAlaAspGluValLysSer 40
RESULT 2 US-11-266-748A-25769 ; Sequence 25769, Application US/11266748A ; Publication No. US20060134663A1	Oy 676 ASDALAThrArgLySGLYASDLYSILEARG	192 65 198	1801 AG7 616 Let 1861 CTC	Db 1681 CGCTTTCCGGGATGCCGCTGCAAAGCAAGC Qy 576 AlaValArgGluCy8AspProAspLeuCy8	1561 CAT 536 CY8 1621 TGT	1441 ATC 496 His 1501 CAC	6 Arg	376 1141 396 1201 416 1261

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GENERAL INFORMATION:

APPLICANT: Harkin, Paul

APPLICANT: Johnston, Patrick

APPLICANT: Mulligan, Karl

TITLE OF INVENTION: Transcriptome Microarray Technology and

TITLE OF INVENTION: Methods of Using the Same

FILE REFERENCE: 55815-0102 (13018)

CURRENT PILING DATE: 2005-11-03

PRIOR APPLICATION NUMBER: EP 04105479.2

PRIOR APPLICATION NUMBER: EP 04105482.6

PRIOR FILING DATE: 2004-11-03

PRIOR APPLICATION NUMBER: EP 04105483.4

PRIOR APPLICATION NUMBER: EP 04105483.4

PRIOR APPLICATION NUMBER: EP 04105507.0

PRIOR FILING DATE: 2004-11-03

PRIOR FILING DATE: 2004-11-03

PRIOR APPLICATION NUMBER: EP 04105485.9

PRIOR APPLICATION NUMBER: EP 04105485.9

PRIOR APPLICATION NUMBER: EP 04105484.2

PRIOR PILING DATE: 2004-11-03

PRIOR PILING DATE: 2004-11-03

PRIOR PILING DATE: 2004-11-03

PRIOR APPLICATION NUMBER: US 0405484.2

PRIOR FILING DATE: 2004-11-03

PRIOR APPLICATION NUMBER: US 060/662,276

PRIOR FILING DATE: 2005-07-18

NUMBER OF SEQ ID NOS: 483996

SOFTWARE: PATATION VERSION 3.3
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; ORGANISM: Homo Sapiens
US-11-266-748A-25769
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SEQ ID NO 25769
LENGTH: 2655
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GlnAspGlyThrPheIleGluGluLeuIleLysAsnTyrAspGlyLysValHisGlyAsp
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                                                                                                                                                                                                                                                                                                                                                SerGluTyrMetArgLeuArgGlnLeuLysArgPheArgArgAlaAspGluValLysSer
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                                                        MetValGluAspGluThrValLeuHisAsmIleProTyrMetGlyAspGluValLeuAsp
                                                                                                                    LeuAsnAlaValAlaSerValProIleMetTyrSerTrpSerProLeuGlnGlnAsnPhe
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RESULT 3 US-10-539-630-3 IS-equence 3, Application US/10539630 Publication No. US20060104981A1 RECORMATION: Publication No. US20060104981A1 RECORMATION: RECORMATION: RECORMATION: RECORMATION: RECORMATION: RECORMATION: RECORMATION: RECORMATION: RECORDER: RECORDER: RETILE OF INVENTION NUMBER: US/10/539,630 CURRENT PILING DATE: 2005-06-17 PRIOR PILING DATE: 2002-12-24 RECORDER: RECORDER	Qy 696 TyralalysVal 699 	Qy 676 AspalathrargLysGlyAsnLysIleArgPheAlaAsnHisSerValAsnProAsnCys 695	Qy 656 LysValTyrAspLysTyrMetCysSerPheLeuPheAsnLeuAsnAsnAspPheValVal 675	Qy 636 GluPheIleSerGluTyrCygGlyGluIleIleSerGlnAgpGluAlaAgpArgArgGly 655	Qy 616 LeuAlaProSerAspValAlaGlyTrpGlyIlePheIleLy8AspProValGlnLy8Asn 635	Qy 596 SerlybashvalSerCyblybashCybSerlleGlnArgGlySerlyblybHibleuLeu 615	Qy 576 AlaValArgGluCyBAspProAspLeuCysLeuThrCysGlyAlaAlaAspHisTrpAsp 595	Qy 556 ArgPheProGlyCysArgCysLysAlaGlnCysAsnThrLysGlnCysProCysTyrLeu 575	Qy 536 CysVallleAlaGlnAsnPheCysGluLysPheCysGlnCysSerSerGluCysGlnAsn 555	Qy 516 HisValTyrAsnTyrGlnProCysAspHisProArgGlnProCysAspSerSerCysPro 535
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APPLICANT: Johnston, Patrick
APPLICANT: Mulligan, Karl
TITLE OF INVENTION: Transcriptome Microarray Technology and
FILE REFERENCE: 55815-0102 (319189)
CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: US/01/266,748A
CURRENT FILING DATE: 2005-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR FILING DATE: 2004-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105485.9
PRIOR APPLICATION NUMBER: EP 04105485.9
PRIOR APPLICATION NUMBER: EP 04105484.2
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105484.2
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105484.2
PRIOR PILING DATE: 2004-11-03
PRIOR PILING DATE: 2005-01-14
PRIOR APPLICATION NUMBER: US 60/662,276
PRIOR PILING DATE: 2005-07-18
NUMBER OF SEQ ID NOS: 483996
SOFTWARE: Patentin version 3.3
SEQ ID NO 29501
TYPE: DNA
ORGANISM: Homo Sapiens
US-11-266-748A-29501
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                                                           MetValGluAspGluThrValLeuHisAsnIleProTyrMetGlyAspGluValLeuAsp
                                                                                            CTGAATGCAGTTGCTTCAGTACCCATAATGTATTCTTGGTCTCCCCCTACAGCAGAATTTT
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             AlaAlaLeuThrAlaGluArgIleLysThrProProLysArgProGlyGlyArgArgArg
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                                                                          ATCATAGCTCCAGCTCCCGCTGAGGATGTGGATACTCCTCCAAGGAAAAAGAAGAGAAAAA
                                                                                        IleIleAlaProAlaProAlaGluAspValAspThrProProArgLysLysLysArgLys
                                                                                                                                   AGGTTAATTGGGACCAAAACATGTAGACAGGTGTATGAGTTTAGAGTCAAAGAATCTAGC
                                                                                                                                                ArgLeuIleGlyThrLysThrCysArgGlnValTyrGluPheArgValLysGluSerSer
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APPLICANT: HATKIN, Paul
APPLICANT: Johnston, Paul
APPLICANT: Mulligan, Karl
APPLICANT: Mulligan, Karl
ITILE OF INVENTION: Transcriptome Microarray Technology and
ITILE OF INVENTION: Methods of Using the Same
FILE REFERENCE: 55815-0102 (319189)
CURRENT APPLICATION NUMBER: US/11/266,748A
CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: EP 04105482.6
PRIOR FILING DATE: 2004-11-03
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR APPLICATION NUMBER: EP 04105483.9
PRIOR APPLICATION NUMBER: EP 04105483.9
PRIOR APPLICATION NUMBER: EP 04105485.9
PRIOR APPLICATION NUMBER: EP 04105485.9
PRIOR APPLICATION NUMBER: EP 04105484.2
PRIOR FILING DATE: 2004-11-03
PRIOR FILING DATE: 2004-11-03
PRIOR FILING DATE: 2004-11-03
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: US 60/662,276
PRIOR FILING DATE: 2005-03-14
PRIOR APPLICATION NUMBER: US 60/700,293
PRIOR FILING DATE: 2005-07-18
NUMBER OF SEQ ID NOS: 483996
SOFTWARE: Patentin version 3.3
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                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION
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ORGANISM: Homo Sapiens
FEATURE:
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OTHER INFORMATION: n is a.
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NAME/KEY: misc feature
LOCATION: (1680)...(1680)
OTHER INFORMATION: n is a.
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OTHER INFORMATION: n is a
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AAATATGACTGCTTCCTACATCCTTTTCATGCAACACCCAACACTTATAAGCGGAAGAAC
        LysTyrAspCysPheLeuHisProPheHisAlaThrProAsnThrTyrLysArgLysAsn
                                         SerValGlnArgGluGlnSerLeuHisSerPheHisThrLeuPheCysArgArgCysPhe
                                                               GlnLeuProGlyAlaLeuProProGluCysThrProAsnIleAspGlyProAsnAlaLys
                                                                                                 PheValGluLeuValAsnAlaLeuGlyGlnTyrAsnAspAspAspAspAspAspAspAspGly
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                                 TCTGTTCAGAGAGAGCAAAGCTTACACTCCTTTCATACGCTTTTCTGTAGGCGATGTTTT
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RESULT 6
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PRIOR APPLICATION NUMBER: EP 04105485.9
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PRIOR APPLICATION NUMBER: US 60/662,276
PRIOR PILING DATE: 2005-03-14
PRIOR APPLICATION NUMBER: US 60/700,293
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APPLICANT: Harkin, Paul
APPLICANT: Johnston, P
APPLICANT: Mulligan, K
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APPLICANT: Mulligan, Karl
TITLE OF INVENTION: Transcriptome Microarray Technology
TITLE OF INVENTION: Methods of Using the Same
FILE REFERENCE: 55815-0102 (319189)
CURRENT APPLICATION NUMBER: US/11/266,748A
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TITLE OF INVENTION: Transcriptome Microarray Technology and TITLE OF INVENTION: Methods of Using the Same FILE REFERENCE: 55815-0102 (191189) CURRENT APPLICATION NUMBER: US/11/266,748A CURRENT FILLING DATE: 2005-11-03 PRIOR PILLING DATE: 2005-11-03 PRIOR PILLING DATE: 2004-11-03 PRIOR PILLING DATE: 2004-11-03 PRIOR APPLICATION NUMBER: EP 04105482.6 PRIOR FILLING DATE: 2004-11-03 PRIOR APPLICATION NUMBER: EP 04105483.4 PRIOR PILLING DATE: 2004-11-03 PRIOR PILLING DATE: 2004-11-03 PRIOR PILLING DATE: 2004-11-03 PRIOR APPLICATION NUMBER: EP 04105483.9 PRIOR APPLICATION NUMBER: EP 04105485.9 PRIOR APPLICATION NUMBER: EP 04105485.9 PRIOR PILLING DATE: 2004-11-03 PRIOR PILLING DATE: 2004-11-03 PRIOR PILLING DATE: 2004-11-03 PRIOR PILLING DATE: 2004-11-03 PRIOR PILLING DATE: 2004-11-03 PRIOR APPLICATION NUMBER: US 60/662,276 PRIOR PILLING DATE: 2005-03-14 PRIOR APPLICATION NUMBER: US 60/700,293 PRIOR APPLICATION NUMBER: US 60/700,293 PRIOR APPLICATION NUMBER: US 60/700,293 PRIOR PILLING DATE: 2005-07-18 NUMBER OF SEQ ID NOS: 483996
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US-11-266-748A-319803/c
US-11-266-748A-319803/c
; Sequence 319803, Application US/11266748A
; Publication No. US20060134663A1
; GENERAL INFORMATION:
; APPLICANT: Harkin, Paul
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; LOCATION: (1425)..(1448)
; OTHER INFORMATION: n is
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RESULT 8
US-11-266-748A-62177
Sequence 62177, Application US/11266748A
Publication No. US20060134663A1
GENERAL INFORMATION:
APPLICANT: Harkin, Paul
APPLICANT: Johnston, Patrick
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; TITLE OF INVENTION: Transcriptome Microarray Technology and
; TITLE OF INVENTION: Methods of Using the Same
; TITLE OF INVENTION: Methods of Using the Same
; TITLE OF INVENTION: Methods of Using the Same
; TURE OF INVENTION OF SAME
; CURRENT FILING DATE: 2004-11-03
; PRIOR APPLICATION NUMBER: EP 04105482.6
; PRIOR APPLICATION NUMBER: EP 04105483.4
; PRIOR FILING DATE: 2004-11-03
; PRIOR APPLICATION NUMBER: EP 04105483.4
; PRIOR APPLICATION NUMBER: EP 04105483.4
; PRIOR APPLICATION NUMBER: EP 04105483.9
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; PRIOR APPLICATION NUMBER: EP 04105485.9
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; PRIOR APPLICATION NUMBER: EP 04105484.2
; PRIOR APPLICATION NUMBER: EP 04105484.2
; PRIOR APPLICATION NUMBER: US 60/662,276
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; TYPE: DNA
; ORGANISM: Homo Sapiens
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           IlePheValGluLeuValAsnAlaLeuGlyGlnTyrAsnAspAspAsp-----
                                                                                                                                       MetGlyAspGluValLeuAspGlnAspGlyThrPheIleGluGluLeuIleLysAsnTyr
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                                                                                                                    <u>ATGGGAGATGAAGTGAAAGAAGATGAGACTTTTATTGAGGAGCTGATCAATAACTAT</u>
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LeuLysLysAspGlySerSerAsnHisValTyrAsnTyrGlnProCysAspHisProArg
                               TyrAspAsnPheCysAlaIleAlaArgLeuIleGlyThrLysThrCysArgGlnValTyr
                                                                                                                                                                   GluAsnValGluTrpSerGlyAlaGluAlaSerMetPheArgValLeuIleGlyThrTyr
                                                                                                                                                                                                                                         GluGluGluLysLysAspGluThrSerSerSerSerGluAlaAsnSerArgCysGlnThr
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                                                                        CAGTTTGCAGTCAAAGAA---TCACTTATCCTGAAGCTGCCAACAGATGAGCTCATGAAC
                                                                                                                TTCAACAACTTCTGTTCAATAGCCAGGCTTCTGGGGACCAAGACGTGCAAGCAGGTCTTT
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                                                                                             AsnLeuAsnAsnAspPheValValAspAlaThrArgLysGlyAsnLysIleArgPheAla
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TITLE OF INVENTION: Frankeriptome Microarray Technology and TITLE OF INVENTION: Methods of Using the Same FILE REFERENCE: 55815-0102 (319189)

CURRENT APPLICATION NUMBER: US/11/266,748A

CURRENT FILLING DATE: 2005-11-03

PRIOR APPLICATION NUMBER: EP 04105479.2

PRIOR FILLING DATE: 2004-11-03

PRIOR FILLING DATE: 2004-11-03

PRIOR APPLICATION NUMBER: BP 04105482.6

PRIOR FILLING DATE: 2004-11-03

PRIOR APPLICATION NUMBER: BP 04105483.4

PRIOR APPLICATION NUMBER: BP 04105483.4

PRIOR APPLICATION NUMBER: BP 04105485.9

PRIOR APPLICATION NUMBER: BP 04105485.9

PRIOR APPLICATION NUMBER: BP 04105485.9

PRIOR APPLICATION NUMBER: BP 04105485.9

PRIOR APPLICATION NUMBER: BP 04105486.2

PRIOR PILLING DATE: 2004-11-03

PRIOR APPLICATION NUMBER: BP 04105484.2

PRIOR PILLING DATE: 2004-11-03

PRIOR APPLICATION NUMBER: US 60/662,276

PRIOR PILLING DATE: 2005-03-14

PRIOR PILLING DATE: 2005-03-14

PRIOR PILLING DATE: 2005-03-14

PRIOR PILLING DATE: 2005-03-18

NUMBER OF SEQ ID NOS: 483996

SOPTWARE: Patentin version 3.3

SEQ ID NO 26094

LENGTH: 4640

TYPE: DNA

ORGANISM: Homo Sapiens Sequence 26094, Application US/11266748A Publication No. US20060134663A1 GENERAL INFORMATION:

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Score:
Percent Similarity:
Best Local Similarity:
Query Match:
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                                                         ATGGGAGATGAAGTGAAAGAAGAAGATGAGACTTTTATTGAGGAGCTGATCAATAACTAT
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ATCCTCAATGAAGAATGGAAGCTTCGTGTCCAACCTGTTCAGTCAATGAAGCCTGTG
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AGAAAGCGACATGCTATTGAAGGCAACAAA-----AAGAGTTCCAAG-----AAACAG
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                                                                                               GATGACATGAAGGAAGGTATCGAGAACTAACAGAGATGTCAGACCCCAATGCACTTCCC
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 ProPheHisAlaThrProAsnThrTyrLysArgLysAsnThrGluThrAlaLeuAspAsn
                              LeuHisSerPheHisThrLeuPheCysArgArgCysPheLysTyrAspCysPheLeuHis
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   GlnAspGluAlaAspArgArgGlyLysValTyrAspLysTyrMetCysSerPheLeuPhe
                                        | IleLyBABpProValGlnLyBABnGluPheIleSerGluTyrCyBGlyGluIleIleSer 647
                                                                      CGTGGACTTAAGAAGCACCTGCTGCTGGCCCCCTCTGATGTGGCCGGATGGGGCACCTTC
                                                                                ArgGlySerLysLysHisLeuLeuLeuAlaProSerAspValAlaGlyTrpGlyIlePhe
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Sequence 241375, Application US/11266748A

Publication No. US20060134663A1

GENERAL INFORMATION:

APPLICANT: Harkin, Paul

APPLICANT: Mulligan, Karl

TITLE OF INVENTION: Methods of Using the Same

TITLE OF INVENTION: Methods of Using the Same

FILIR REFERENCE: 55815-0102 (319189)

CURRENT APPLICATION NUMBER: US/11/266,748A

CURRENT FILING DATE: 2005-11-03

PRIOR APPLICATION NUMBER: EP 04105482.6

PRIOR FILING DATE: 2004-11-03

PRIOR APPLICATION NUMBER: EP 04105483.4

PRIOR APPLICATION NUMBER: EP 04105483.4

PRIOR APPLICATION NUMBER: EP 04105483.4

PRIOR APPLICATION NUMBER: EP 04105483.9

PRIOR APPLICATION NUMBER: EP 04105483.9

PRIOR APPLICATION NUMBER: EP 04105485.9

PRIOR APPLICATION NUMBER: EP 04105485.9

PRIOR APPLICATION NUMBER: EP 04105484.2

PRIOR APPLICATION NUMBER: EP 04105484.2

PRIOR APPLICATION NUMBER: US 04105484.2

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; PRIOR APPLICATION NUMBER: US 60/700,29
; PRIOR FILING DATE: 2005-07-18
; NUMBER OF SEQ ID NOS: 483996
; SOFTWARE: Patentin version 3.3
; SEQ ID NO 241375
; LENGTH: 2074
; TYPE: DNA
; ORGANISM: Homo Sapiens
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                                                                             SerSerSerGluAlaAsnSerArgCysGlnThrProIleLysMetLysProAsnIleGlu
                                                                                                                                                                                                                SerThrProThrIleAsnValLeuGluSerLysAspThrAspSerAspArgGluAlaGly
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                                      ProProGluAsnValGluTrpSerGlyAlaGluAlaSerMetPheArgValLeuIleGly
                                                                                                                                                       ThrGluThrGlyGlyGluAsnAsnAspLysGluGluGluGluLysLysAspGluThrSer
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                       CCTCCTGAGAATGTGGAGTGGAGTGGTGCTGAAGCCTCAATGTTTAGAGTCCTCATTGGC
                                                                                                                                       ACTGAAACGGGGGGAGAGAACAATGATAAAGAAGAAGAAGAAGAAGAAGATGAAACTTCG
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Matches:
Conservative:
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534	514 rAsnHisValTyrAsnTyrGlnProCysAspHisProArgGlnProCysAspSerSerCy	
1865	GTTTCCATCTCCCTGGATTCATTGGCCTGCATGATGTTATCTTTACTCAGACGGCTCCTC	
514	511AspGlvSerSe	
1805	1746 AGGCCAGCTACACTCCACAGGTAGTAGGGAAGAATGTACTCGTGTTAATTGTGTATGATC	
510	510	
1745	1686 TATTTTTTGCCATCGTTGTGGAAACCGGAATATGTGTAATGTTATGCATTCAGTAAAGGC	
510	510	
1685	1626 ATGGGACTGAGATGTAGCCGTGCTTTAGATGGAACTCATAAGCACTTGGGGGTGGGAGAG	
510	510	
1625	1566 TAAAGTGGAGGCTGACTGGAAGGTGTGAGTCCGAGTCAGTTGAAGGAAG	
510	510	
1565	1506 ATGTTAAACCAATTTGAATGGAGGACGTCTACTGATGAATCCCCAGTCAATTCTCTTCTG	
510	510	
1505	1446 TITGITTIAGAATAGTAACIGGATTAGAGCITGGGITATICTAATATAATIGCCTICTGI	
510	510	
1445	1386 AAGGGTTAGCATCTTTCCATTCCTCTCATTATTAGCTTAACAATATCTGCTTTGTTTTCA	
510	510 Lyg	
1385	26 TAATTTTCTTTGTGTTTTTGCAGGTTGTGGGCTGCACACTGCAGAAAGATACAGCTGAAA	
1325	1266 CAGATAGATCCAGTTAAGCAGCTCTCTGTTGGATTTGTAGCTTCCCGCAGAAATTTTGGTT	
496	96	
N	06 GCAAAAATAAACTGGGCAGGGCATGACTCTTGGCTTTAACGCATTCCTGTATTCATGG	
496	496	
1205	1146 GTCTTGCCACACCTGGGGCAGCCTGAGCCATCAAGCTGTTTGAGTTGCTTCAAACTGATG	
496	496	
1145	1086 GTGCAGCATTGGGAGCTCACGAGTTCTGACCAGGAGTCATGGATGAACACAGGAAATGAC	
496	496	
1085	1026 GGAAGTGATCAGTGTCATCCACATCAGAATAAATCAACAGGCAGACACACCTGCTGCTTT	
496	496	
1025	966 TGGTTGAATTATTTCTGACCACGTAGTTCACTTGCTTGGTTTATGATGCCTGAAATAAGA	
496	496	
965	906 GATACTCCTCCAAGGAAAAGGAGGAAACACCGGCTTTAGGAGATGCTTCTGAAATTT	
496	486 AspThrProProArgLysLysLysArgLysHis	
485 905	466 ValtyrGluPheargVallysGluSerSerIleIleAlaProAlaProAlaGluAspVal	
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TITLE OF INVENTION: Methods of Using the Same
FILE REFERENCE: 55815-0102 (319189)
CURRENT APPLICATION NUMBER: US/11/266,748A
CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: EP 04105479.2
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105482.6
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.9
PRIOR APPLICATION NUMBER: EP 04105485.9
PRIOR APPLICATION NUMBER: EP 04105485.9
PRIOR APPLICATION NUMBER: EP 04105484.2
PRIOR FILING DATE: 2004-11-03
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PRIOR FILING DATE: 2005-03-14
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PRIOR APPLICATION NUMBER: US 60/700,293
PRIOR APPLICATION NUMBER: US 60/700,293
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; NAME/KEY: misc feature
; LOCATION: (468)...(468)
; OTHER INFORMATION: n is
US-11-266-748A-98588
Score:
Percent Similarity:
Best Local Similarity:
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US-11-266-748A-98588/c
US-11-266-748A-98588/c
; Sequence 98588, Application US/11266748A
; Publication No. US20060134663A1
; GENERAL INFORMATION:
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ORGANISM: Homo Sapiens
FEATURE:
NAME/KEY: misc feature
LOCATION: (86)..(86)
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APPLICANT: Johnsto
APPLICANT: Mulliga
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LOCATION: (367)...(367)
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TITLE OF INVENTION: Transcriptome Microarray Tech:
TITLE OF INVENTION: Methods of Using the Same
FILE REFERENCE: 55815-0102 (319189)
CURRENT APPLICATION NUMBER: US/11/266,748A
CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: EP 04105479.2
PRIOR FILING DATE: 2004-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105482.6
PRIOR FILING DATE: 2004-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105507.0
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105485.9
PRIOR APPLICATION NUMBER: EP 04105485.9
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PRIOR APPLICATION NUMBER: EP 04105484.2
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SOFTWARE: PatentIn version 3.3
SEQ ID NO 151399
LENGTH: 1140
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ORGANISM: Homo Sapiens
PEATURE:
NAME/KEY: misc feature
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APPLICANT: Johnston, Patr
APPLICANT: Mulligan, Karl
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TITLE OF INVENTION: Methods of Using the Same
FILE REFERENCE: 55815-0102 (319189)
CURRENT APPLICATION Methods of Using the Same
FILE REFERENCE: 55815-0102 (319189)
CURRENT APPLICATION NUMBER: BP 04102479.2
FRIOR APPLICATION NUMBER: EP 04105479.2
FRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105482.6
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR APPLICATION NUMBER: EP 04105507.0
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105485.9
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105484.2
PRIOR APPLICATION NUMBER: EP 04105484.2
PRIOR APPLICATION NUMBER: US 06062,276
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: US 60/662,276
PRIOR PILING DATE: 2005-03-14
PRIOR APPLICATION NUMBER: US 60/700,293
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US-11-266-748A-175796
PRATURE:
NAME/KEY: misc feature
LOCATION: (251)...(251)
OTHER INFORMATION: n is
US-11-266-748A-175796
                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Homo Sapiens
PEATURE:
NAME/KEY: misc_feature
LOCATION: (18)...(18)
OTHER INFORMATION: n is a
PEATURE:
NAME/KEY: misc_feature
LOCATION: (64)...(87)
OTHER INFORMATION: n is a
PEATURE:
NAME/KEY: misc_feature
LOCATION: (141)...(141)
OTHER INFORMATION: n is a
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NAME/KEY:
LOCATION:
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LOCATION: (151)..(151)
OTHER INFORMATION: n i
FEATURE:
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                                                                                                           eLysMetLysProAsnIleGluProProGluAsnValGluTrpSerGlyAlaGluAlaSe
                                                                                                                                                                                                                                                                                                                    uProAsnAsnSerSerArgProSerThrProThrIleAsnValLeuGluSerLysAspTh
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                                                                                                                                                                                               uGluLysLysAspGluThrSerSerSerSerGluAlaAsnSerArgCysGlnThrProIl 418
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eGlyThrLysThrCysArgGlnValTyrGlu-PheArgValLysGluSerSerIleIleA
                                                                   rMetPheArgValLeuIleGlyThrTyrTyrAspAsnPheCysAlaIleAlaArgLeuIl
                                                                                                                                                                                                                                       AGACAGTGATAGGGAAGCAGGGACTGAAACGGGGGGGAGAACAATGATAAAGAAGAAGA
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                                                   AATGTTTAGAGTCCTCATTGGCACTTACTATGACAATTTCTGTGCCATTGCTAGGTTAAT
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Query Match:
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FILE OF INVENTION: Methods of Using the Same
FILE REFERENCE: 55815-0102 (319189)
CURRENT APPLICATION NUMBER: US/11/266,748A
CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: EP 04105492.6
PRIOR PILING DATE: 2004-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR PILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105483.4
PRIOR FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: EP 04105403.9
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US-11-266-748A-361225, Application US/11266748A
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